**George Brown College Sustainability Plan, April 2019**

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College Council

Academic Management Committee (AMC)

Academic Chairs and Directors Team (ACDT)

Chartwells Food Services

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# **PREFACE: George Brown College Sustainability Plan Guiding Principles**

### The Fourth Industrial Revolution, and the societal shifts it triggers, means we have to reimagine how we manage our shared global environment and natural resources.

George Brown College has a responsibility to reduce our eco-footprint and our contribution to climate change through sustainability driven procurement, energy retrofit and conservation practices and zero waste strategies.

This Sustainability Plan is guided by the following goals:

* Neutrality: Reduce the College’s carbon footprint
* Innovation: Prepare students and employees for the 4th Industrial Revolution
* Leadership: Lead by example modelling conservation and climate stewardship

The college is committed to developing the following behaviours, actions and policies that lead to environmental, financial and social sustainability:

* **Eco-Footprint Reduction** - Reducing the environmental impacts of all college operations
* **Sustainability Education** –Sharing sustainability knowledge to support social, economic and environmental prosperity.
* **Engagement -** Collaborating and innovating to develop best practices for a sustainable future.

# **1. SUSTAINABILITY PLAN - KNOWLEDGE**

### **Over-Arching Objective:**

* Graduates have knowledge and skills that incorporate sustainability into their discipline(s). Every active program contains a minimum of one learning outcome relating to social, environmental or economic sustainability.

## **1.1 Sustainability in Curriculum**

### **Objective:**

* 2019/2020: Academic Excellence Program Review Office to revisit results of 2014 audit of sustainability learning to establish whether programs identified as having zero sustainability-related learning outcomes have closed the gap by adding one or more sustainability-related learning outcomes.

### **Work Plan**

* Programs that have closed the gap and met the 2014 goal will be added to an update/conclusion of the 2014 report.
* Programs that have not yet closed the gap can request Curriculum Specialist assistance from OAE to help them do the following:

- identify a candidate course for a sustainability-related learning outcome;

- articulate a measurable, discipline-focused sustainability learning outcome within the identified course;

- confirm to Academic Management Committee that they have closed the gap and met the 2014 goal.

#### **Metrics:**

* Review of 27 programs that do not include sustainability LO's: Table 1 indicates number of programs in each Centre that do / do not currently contain at least one course with at least one sustainability-related learning outcome.

|  |  |  |  |
| --- | --- | --- | --- |
| **Centre** | **Total # of Programs** | **# of Programs that *Already* Contain Course/s with Sustainability Learning Outcomes** | **# of Programs that *Do Not* Contain Course/s with Sustainability Learning Outcomes** |
| Centre for Business | 26 | 14 | 0 |
| Centre for Arts & Design | 20 | 11 | 9 |
| Centre for Construction & Engineering Technologies | 25 | 22 | 3 |
| Centre for Hospitality & Culinary Arts | 19 | 16 | 3 |
| Centre for Health Sciences | 26 | 20 | 6 |
| Centre for Community Services & Early Childhood | 21 | 21 | 0 |
| Centre for Preparatory & Liberal Studies | 14 | 8 | 6 |

## **1.2 Resources for Faculty**

### **Objective:**

* Faculty have tools, information and guidance to increase their understanding of what is meant by Education for Sustainability (EfS) generally and in their vocational areas and apply that knowledge in their teaching.

### **Work Plan:**

* Explore ways to integrate Education for Sustainability (EfS) resources and guidance with the new Teaching and Learning Exchange team.
* Organize Lunch & Learn sessions with guest speakers on Education for Sustainability topics tailored to select Academic Centres.
* Support faculty led College initiatives such as the Philosophy of Education Conference and the annual Tommy Douglas Institute Conference which focuses on different themes related to social equity, justice and sustainability. (The 2019 topic is: Poverty, Populism, Planet: The Demand for Economic Justice Now.)
* Include a section in the College’s new sustainability web-site for sharing resources, best practices, and information about professional development opportunities related to Education for Sustainability.

### **Metrics:**

* Two sustainability related Lunch & Learns
* Resources included in TLX

### **Metrics:**

### # Employees who participate in Lunch & Learns

* # Employees who access TLX on-line sustainability resources

# **2. SUSTAINABILITY PLAN ENGAGEMENT:**

### **Over-Arching Objective:**

The George Brown College community collaborates and acts on sustainability initiatives and practices that keep us on a sustainable path.

## **2.1 Communications Program**

**Objective:**

* The College has an effective and purposeful communications program for external and internal audiences to inform them about the College’s sustainability efforts and to promote buy-in, behaviour change and support of sustainability practices.

#### **Work Plan**

* Create communications content to reach out to various internal (students, staff, faculty,) and external audiences through social media platform and newsletters etc. in order to raise awareness of George Brown College's sustainability initiatives and plans.

**Metrics:** 

* 12 Posts per year in GBC Twitter @GBCollege and Instagram (gbcollege)
* 4 articles in @GBC and MyGBC per year on sustainability issues (e.g., related to academics, sustainability campaign and/or facilities success stories)
* Develop 12 slides with sustainability action/tips for posting on digital screens around the College

## **2.2 Sustainability Web-Site**

### **Objective:**

* The College has an effective and informative web-site that promotes, engages and educates internal and external audiences about the College sustainability initiatives and plans.

### **Work plan**

* Update the content, layout and overall design of the Sustainability web presence (this could include implementing new functionality and web templates to improve the user experience).

### **Goal:**

- Updated web-site by end of August 2019 including Sustainability Plan Report available on-line

### **Metrics:**

- Increase in web-site traffic compared to current levels

## **2.3 Process Stewardship Initiative**

### **Objective:**

* Identify college processes that if altered, would promote the college guiding principles of achieving carbon neutrality, demonstrating innovation and exercising climate stewardship.

### **Work Plan**

* Provide opportunities for GBC community engagement directly related to reducing the College’s eco-footprint.
* Provide a carbon footprint management tool to educate staff and students to improve the determinants of low-carbon behaviours, to promote low-carbon concepts and to facilitate their carbon management.
* Focus on improvements that foster the reduction of carbon and/or eco-footprints.
* Use the information from this engagement in decision making by college personnel responsible for determining operating processes for their Division.

#### 

### **Tactics/Examples of Behavioral Changes:**

* Enterprise wide video communications using a reliable platform for video and audio conferencing, chat, and webinars etc. in place of some onsite meeting.
* Telecommuting; Hoteling (temporary office carrels)
* Process automation (software like asset and contract management software, papercut etc.).
* Going paperless, digitize wherever possible (See Paper Conservation section.)
* Purchase of environmentally friendly office supplies (See Green Purchasing section)

### **Metrics:**

* % employees telecommuting and/or hotelling
* Increased % of eco-friendly office product purchases.

## **2.4 Student Sustainability Awareness and Education Opportunities**

### **Objective:**

* Students have opportunities to experience the practice of sustainability in their campus experience through peer-to-peer sustainability outreach and learning, in extra/co-curricular activities and/or by collaborating with different areas of the College on special projects.

### **Work Plan**

* WWF Living Planet Leadership Program:

- Provide opportunities for students to participate in the WWF’s Living Planet Leader program which requires students to demonstrate sustainability leadership, teamwork, and an understanding of sustainability as it applies to their area of study.

- Promote the program at student Service Fairs.

- Make presentations in classes (courses with a sustainability aspect).

* Sustainability Squad:

- Provide support and guidance as “Faculty Advisor” to the student Sustainability Squad.

The Student Association supports a Sustainability Club for student led sustainability action, awareness building and campaigns.

* The George Eco Residence Committee:

- Provide support and guidance to The George’s student Green Committee that works on practical environmental projects and campaigns for students living in residence to promote environmental stewardship (e.g., waste audits, turning off the lights, water conservation, shoreline clean-up, etc.)

**Metrics:**  
- 5 Students participate in WWF Living Planet @ Campus Program   
- Two student-run Sustainability Squad sustainability events.   
- Four students are selected to be on the GBC team for the Designing Change “hackathon” competition.   
- Participate in three Student Service Fairs and/or Orientation.   
- The George: Two sustainability events per academic year involving > 20 students each.

## **2.5 Sustainability: Funding/Financing Mechanisms for Sustainability**

### **Objective:**

* The College has a sustainable resource/funding model to support sustainability initiatives and actions.

### **Work plan**

* Explore options/alternative resources to fund sustainability initiatives and actions including:
* Develop new collaborative funding partnership with community, corporate, foundation and private entities to support sustainability initiatives at the College.
* Leverage existing relationships with vendors, industry partners, etc. to uncover new sources of funding for sustainability initiatives, (e.g., redirection of rebates and incentives)
* Investigate with Facilities Management and Finance the viability of establishing a revolving sustainability fund from utility savings.
* Explore and take advantage of new and innovative sources of governmental (municipal, provincial, federal) funding for sustainability initiatives.
* Work with the College’s Finance Office to investigate possible financial /budgetary measures to incentivize and fund sustainability initiatives (e.g., charge backs for paper use, utilities, etc.)
* Work with the GBC Foundation and Alumni Office to create new fundraising opportunities specifically to fund academic scholarships and/or other learning opportunities for students related to sustainability.

### **Metrics:**

* Volume of $ Funds raised
* # Special Projects realized

### **Target:**

* Replicate the CCET Sustainability Scholarship model in one other Academic Ctr.
* One “partnership” project (either with private sector, NGO, community or other)

# **3. SUSTAINABILITY: ECO-FOOTPRINT**

### **Over-Arching Objective:**

* To be a leader in sustainability by reducing the eco and carbon footprint of the College’s facilities, operations, procurement and future building plans.

## **3.1 Product Stewardship/Materials Management**

### **Objective:**

* Develop a circular economy plan for the college by reducing the life-cycle impacts of products the college purchases.

### **Work plan**

* Identify difficult to recycle materials and identify alternative material substitutes, product replacements and/or recycling opportunities.
* Promote conservation, reuse, environmentally friendly decision making both internally and with the supplier community.

**Year 1:**

- Create a list of difficult to recycle materials and barriers and alternative material substitutes.

- Contact vendors of high-volume items to inquire whether they would support Circular Economy Pilot Project(s) to recycle products such as nursing/dental gowns, nitrile gloves and used toothpaste tubes and toothbrushes in Dental Wave Clinic and Nursing Simulation programs.

**Goal:**

* Successfully transform at least one “waste” product into a circular economy solution.

**Metrics:**

- Volume of specialty materials diverted from landfill (e.g., nitrile gloves).  
- Number of developed plans for reuse, recycling or replacement.   
- Divisional use of information in decision making.

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## **3.2 Supplier Climate Stewardship Awareness and Education Software**

### **Objective:**

* Create an evidence-based supplier engagement tool that demonstrates leadership in exercising climate stewardship, reduction in our ecological footprint and establishes a composite measure that informs sustainable development and ecological economics.

### **Work plan:**

* Promote supplier awareness of climate stewardship through a Supplier Sustainability Assessment.
* Use the information from this engagement to inform decision making by college personnel responsible for ordering goods for their Division to affect a positive environmental and socio-economic impact.
* Enable suppliers to generate their own sustainability action plans perhaps using a software tool endorsed by the Ontario College’s Purchasing Managers Association (OCPMA). The college will be able to evaluate the data that is generated to understand how the supplier is making progress in relation to sustainability. The data could include chain of custody information (both environmental and social sustainability), material life cycle assessment and source of power generation for raw material production.
* Incorporate this software into the curriculum, such in the Centre for Business Supply Chain Management, could enable the college to deliver student engagement focusing on climate stewardship in their own specific context.

### **Target:**

* Distribute Supplier Sustainability Assessment Questionnaire to key vendors in 2019.
* Successfully develop a pilot software in cooperation to software proponents and the OCPPA.

**Metrics:**

* Number of vendors engaged
* Quality of responses from vendors.
* Divisional use of information in decision-making.
* Number of students engaged

## **3.3 Process Improvements (Paper)**

### **Objectives:**

* Reduce the College’s consumption of paper resources.
* Reduce use of mail services College-wide.

### **Work Plan**

* Finance is developing an ability to pay some vendors by Visa Pay through our ERP. Once complete, the same logic will be used to pay students through e-payment. To pay more vendors through EFT requires the cooperation of all Departments and Divisions within the college.
* Ability to pay using Visa Pay being developed by Scotiabank, ITS and Finance.
* Provide guidance to Campus Stores regarding how they too can move to electronic invoices and payments.
* Carry out survey of paper forms still being used and devise strategies to replace with electronic forms.

**Metrics:**

- Cost savings from mailing service:

* 20$ Cost savings for envelopes.
* 90$ Cost savings for postage and mailing service
* Cost of labour which still needs to be determined.

## **3.4 Paper Conservation & Photocopier Fleet Optimization:**

### **Objectives:**.

* Reduce the environmental impacts of paper consumption, and reduce paper waste, by reducing printing and use of other associated consumables (toners, etc.)

### **Work plan**

- Replace photocopy machines with larger volume, more energy efficient, strategically placed machines and reduce associated paper use via greater printer controls.

- Develop a College Print Policy to control printing at the College including mandating duplex printing and maximum print limits on copiers.

- Phase out desk top printers.

- Utilize the Paper Cut Print Management software to track printing and control printer behaviour at the College and devise strategies to reduce printing.  
- Promote increased use of on-line tools such as Microsoft Teams, Blackboard by all employees.

**Metrics:**

- Employee device ratio: 6:1 Optimal   
- Reduced volume of purchased photocopy paper.

- Reduced photocopy paper purchase costs.  
- Reduced volume of printing by Xerox print centres. 

## **3.5 Food Services**

### **Objective:**

* Reduce the environmental impacts of food services and dining operations.
* Model sustainability best practices in College run, contractor operated cafeterias, and College hosted catered meetings and events.
* Where feasible encourage franchise operations to align with sustainability principles and practices.

### **Work plan**

### **a) Food and Beverage Purchasing:**

- Increase the percentage of local (Ontario) and sustainable food purchases.

- Work towards becoming a certified Fair Trade Campus.

- Develop a College policy related to sale of single serve bottled water.

### **b) Dining Operations (Waste & Energy Management):**

- Collect post-consumer food waste at catered events of >50 people at all campus locations; (note: need collaboration from Facilities Management/custodial staff).

- Upgrade Cafeteria and CHCA kitchen appliances and equipment to be Energy Star certified.

**c) Campus Living Centres:**

- Develop sustainability guidelines for all caterers at The George and the Blackburn Convention Centre located at 80 Cooperage Street.

### **d) Centre for Hospitality and Culinary Arts (CHCA)**

- Implement Chef School Sustainability Blueprint affecting all culinary labs and Culinary Arts Enterprise run food outlets including Chef on the Go, The Café, The Chefs’ House and catered events at 300 Adelaide St. E.

### **Metrics:**

- LEAF ([www.LEAFme.org](http://www.LEAFme.org)) certification for the Chef School (Level 2)

- % Reduction in food waste

- % increase in local food and beverages purchases   
- % increase third party certified sustainable food purchases   
- % reduction single use plastics and bottled water  
- Increased number of catered events with organics diversion   
- % Energy Star Appliances/equipment

## **3.6 Energy Management**

### **Objective:**

Reduce the College's carbon footprint by 80% below 2005 levels by 2050, by continuously reducing energy demands across all college owned properties by:

* + reducing energy consumption,
  + reducing greenhouse gas emissions and
  + introducing an energy conservation program.

### **Strategies that the support our objective:**

* Reduce the college carbon foot print.
* Use capital plan funding to focus on deferred maintenance and infrastructure renewal.
* Developing new and more efficient properties.
* Build and engage in a partnership with district energy
* Develop an energy conservation plan.

### **Initiatives that support our strategies:**

* Relinquish older and inefficient buildings (175 Kendal, 500 MacPherson)
* Replace older plant infrastructure with more effective and efficient equipment (High efficiency boilers and chillers)
* Introduce LED lighting and occupancy sensors to all owned properties
* Planning for the Arbour building to be net zero carbon through use of mass timber and passive energy solutions.
* Replacing ineffective building envelope conditions (windows, doors etc.)
* Develop District Energy agreements for Arbour and Daphne Cockwell.

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## **3.7 Solid Waste Reduction Plan**

### **Objective**

* Minimize production of waste and maximize recycling to achieve a total diversion rate of 70% in line with the City of Toronto’s Long Term Waste Management Strategy.
* Meet the intent of the provincial Strategy for a Waste Free Ontario which lays out **Ontario's** vision for a circular economy and goals of a zero-waste Ontario with zero greenhouse gas emissions from the waste sector.

### **Targets (by 2022)**

* Increase total diversion rate to 70% (based on annual waste audit data) which is an increase of 1% on average over next 4 years.
* Waste Reduction: Reduce overall waste generation (garbage/waste, recycling, compost).

### **Strategies:**

### **Waste Audits and Consolidated Annual Reporting**

* Carry out annual waste audits for each campus to determine the annual waste diversion rate for George Brown College resulting from existing waste reduction, reuse, recycling and composting programs.
* Continue to implement consolidated annual reporting of all waste and diversion streams to augment waste data.
* Use waste audit data to identify point of generation, to quantify composition of wastes and to identify areas for high priority action.
* Identify any additional opportunities for waste reduction and diversion that may exist.

**Annual Waste Reduction Action Plan**

* Engage and educate the College community to use materials efficiently, minimize production of waste and maximize recyclability.
* Continue hand dryer installation program to reduce/eliminate paper towels college wide.
* Product packaging take-back program for divisional purchases e.g. ITS, CHCA etc.
* Develop policy for waste management and recycling college wide including a standard protocol for recycling system at offices.
* Develop a more detailed Waste Reduction Action Plan to achieve waste reduction and recycling/diversion goals.

**Waste Separation to maximize recycling**

Improve the garbage and recycle separation program by:

* + Engaging and educating the College community to understand the difference between garbage and recycling.
  + Redesign signage for all existing three-hole recycling bins.
  + Add more multi compartment waste containers and remove solitary bins where needed.
  + Add post-consumer organic (food waste) collection bins at selected areas e.g. Cafeteria, student seating areas etc.