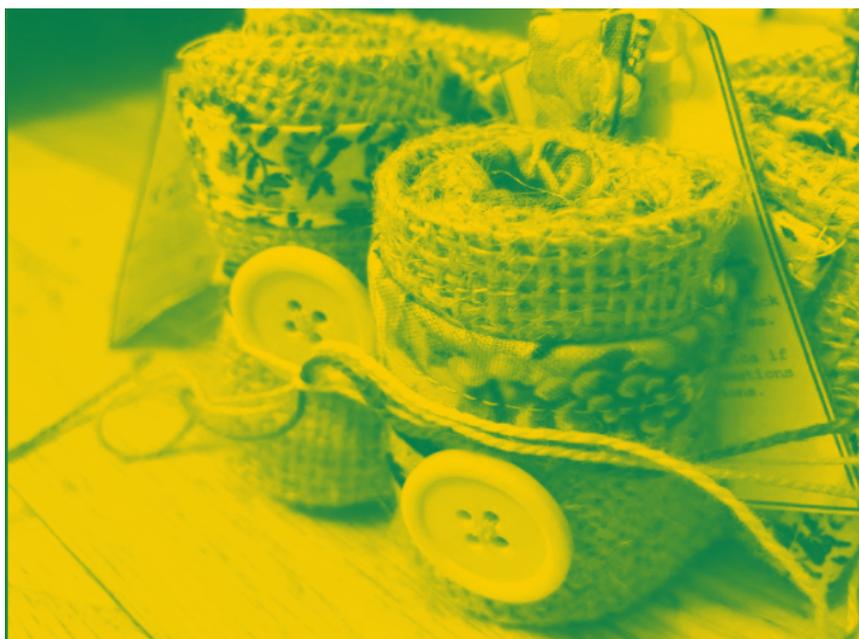


# Academic Sustainability Programs Office

## SUSTAIN 3S03 Course Report



**Fall 2018**





# A Letter From The Senior Manager

In September 2018, another fantastic cohort of students took part in SUSTAIN 3S03 – Implementing Sustainable Change. Students from all six Faculties and the Arts & Science Program engaged in interdisciplinary, community-based, student-led, and experiential education related to sustainability. Led by instructor Dr. Michael Mikulak, with support from Teaching Assistants Mila Gillis-Adelman, Mohammed Abdul-Aziz, and Robert Etherington, students had the opportunity to examine the concept of sustainability by focusing on specific case studies and examples in relation to larger questions of power, knowledge, and human and non-human agency. Lectures, tutorials, and assignments were focused on developing truly interdisciplinary conversations that consider the different techniques and tools society has at its disposal for addressing the environmental crisis.

During the first week of classes, 33 students formed 13 project groups based on their individual interests in sustainability. To complement their theoretical knowledge of sustainability, each student group undertook an experiential learning project of their choosing. To offer support, guidance, and ensure students had the opportunity to work with members of the McMaster and broader community, 13 individuals formally accepted the role of Community Project Champion by offering their time, resources, and expert knowledge to assist students in achieving their project goals. Additionally, countless members of the community participated in events, provided feedback through consultation, and offered mentorship. The tremendous amount of community support and engagement is illustrated by each group in the pages to follow.

As you read this report, you will notice that the breadth of student interests related to sustainability is far-reaching. Projects include implementing a reusable container initiative at the busiest eatery on campus with the BYOC (Bring Your Own Container) program, running an educational tree-planting event with a local high school, conducting a study to understand the factors that contribute to food insecurity at McMaster, and upcycling jute coffee sacks into coffee sleeves and market bags. I hope you enjoy reading this report as much as I have enjoyed my experience in working with the individuals who have created it.



*Kate Whalen*

**Kate Whalen**  
**Senior Manager**  
**Academic Sustainability Programs**

# Department, Program, and Course Overview

## Academic Sustainability Programs Office

The mission of McMaster's Academic Sustainability Programs Office is to inspire in all students a desire for continued learning and inquiry through experiential education. To realize our mission, we strive to provide students with opportunities to take part in interdisciplinary, student-led, community-based, and experiential learning focused on sustainability. To achieve our objectives, the Academic Sustainability Programs Office offers a number of programs, including The Sustainable Future Program.

## The Sustainable Future Program

The Sustainable Future Program consists of a suite of four undergraduate courses, which are open to students from all Faculties. In addition to providing students with opportunities for interdisciplinary, student-led, community-based, and experiential learning about sustainability, the Program aims to build reciprocal relationships between students, community members, and the University, to engage all parties in the journey towards a sustainable future.

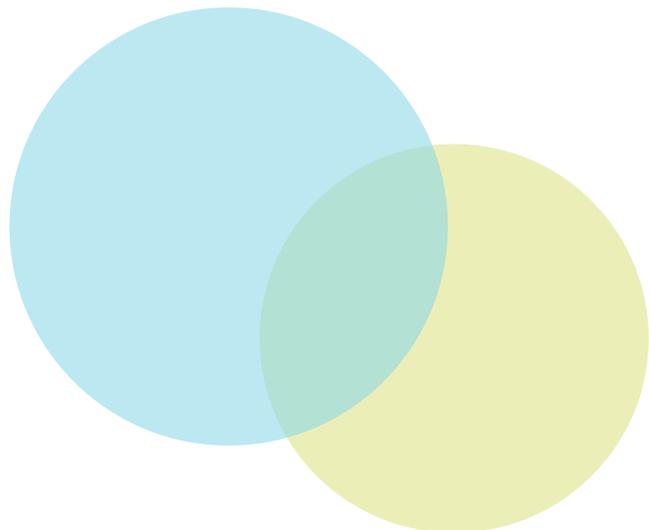
## SUSTAIN 3S03 -- Implementing Sustainable Change

SUSTAIN 3S03 is the third-year, one semester course within the Sustainable Future Program. Students come from Faculties across campus to learn about sustainability and to tackle a real-world sustainability challenge within the McMaster or broader community. Supported by their Community Project Champions, the student teams work together to evaluate the problem and implement sustainable change.



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# **Sustainable Future Program**

# Reducing Food Packaging Waste at McMaster

## Student Authors

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**Natalie Ciancone**, Engineering

## Community Project Champion

**Chris Roberts**, Hospitality Services

## Overview

Food packaging involves the use of many non-recyclable materials that end up as waste and contribute to the increase of greenhouse emissions. In McMaster's most recent Waste Reduction Plan, the University puts a focus on "The 3 Rs", Reduce, Reuse, and Recycle in their newest initiative. This involves positioning waste bins in sets of three; waste, recycling and compost, in addition to increasing the number of compost bins.<sup>1</sup> The intent is to reduce the number of recyclable products that end up in campus waste bins. One prominent issue that was



BYOC program at Creation X  
Photo credit : Geoff Shaw

not yet addressed is the reduction of the amount of waste created from campus eateries themselves. The goal of our project is to research and implement a waste-free alternative to current food packaging within McMaster's busiest on-campus eatery. By allowing customers to bring their own reusable containers, the hope is that the amount of food that gets packaged, and the volume of waste being disposed of at McMaster, will be considerably less than it is today.

## Objectives

1. Understand food policies in the City of Hamilton
2. Gauge interest for a reusable container program at McMaster
3. Reduce food packaging waste generated from campus eateries through staff and student engagement and participation

## Reporting

Initially, we had to understand the feasibility of implementing a reusable container program in regards to health and safety guidelines. To address this, we researched existing health policies in both Ontario and Hamilton, and realized that our program idea was possible if certain criteria were to be followed. We met with a Hamilton Public Health Inspector to gain a thorough understanding of these policies and discuss food handling methods that would adhere to regulations. With our new understanding of the barriers and opportunities for our project, we ran an online survey to gauge student and staff interest for a Bring Your Own Container Program at campus eateries. We obtained responses from 280 people, a mix between staff, faculty, and students. We found that 90% of respondents were most enticed to use the program because it allowed them to reduce food packaging waste.

We began the implementation process for the Bring Your Own Container Program with a three-week pilot period at Creation X in the McMaster eatery, La Piazza. Prior to the program launch, we began advertising through posters, social media promotions, photos, and a video interview. Furthermore, Hospitality employees were informed and trained on how to carry out the program within health and safety guidelines. During the three-week pilot, we saw participation from less than a quarter of the number of people who had initially expressed interest. The success of this project was being able to provide customers with another option when purchasing food on campus. With continued support and marketing of the initiative, we hope to see participation increase, making bringing your own container a social norm. We look forward to working towards the permanent implementation of the Bring Your Own Container Program and hope to expand the reach of the program to other eateries at McMaster.

## Collaborators

We would like to thank our Community Project Champion, Chris Roberts, Director of Hospitality Services, for his mentorship and support throughout the duration of the project. We would also like to thank Public Health Inspector, Nicole Ferrer-Whitehouse, for taking the time to meet and share her knowledge and suggestions. We are also thankful for the support from Abbie Little and Kate Whalen, from the Academic Sustainability Programs Office; Ciara McCann, Social Media & Digital Content Coordinator; and Geoff Shaw, MES Photographer. Lastly, we would like to thank the Hospitality Services employees for helping to carry out the project as well as students, staff, and faculty of McMaster University for their participation, interest, and enthusiasm.

# Upcycling Jute Coffee Sacks with Detour Coffee Roasters: Reusable Bags

## Student Authors

**Manjyot Kainth**, Commerce

**Brandon Lebel**, Engineering

**Gurinder Sandhu**, Science

## Community Project Champion

**Alex Yurek**, Detour Coffee

## Overview

Detour Coffee Roasters is the third largest specialty coffee roaster in Canada. Distributing to cafes across Canada, Detour imports 40-50% of its raw coffee beans in jute sacks each month, resulting in 12 000 pounds of jute waste annually.<sup>1</sup> When accounting for total national imports, Canada receives 3.1 million jute coffee sacks each year, totalling 1 million pounds of waste and representing an area of concern with the environment.<sup>2</sup> The cities of Hamilton and Burlington lack the infrastructure to

## Objectives

1. Create a product design that minimizes waste during manufacturing
2. Produce product prototypes to test the design and manufacturing process
3. Conduct market research to guide future iterations
4. Establish long-term sustainability of the product's production

## Reporting

After consulting with our project champion, Alex Yurek, and our classmates, we decided to develop a market bag as our upcycled consumer product. While functionality and strength were two important aspects in our design, our main objective was to minimize waste. Thus, we created two prototypes that were not only strong but also utilized over 95% of the jute sack.

To test our two prototypes, we engaged five friends to test them out. By substituting their everyday bag with our prototype, they gave us feedback on what they liked and what we could improve on. Our bags survived the strength test and we received constructive feedback to enhance the aesthetics, specifically related to the fabric lining. Hence, we refined the design by concealing the liner and choosing gender-neutral fabrics.

To begin our market research, we conducted a survey to understand which aspects of the product resonated with consumers most. Functionality was the most important aspect and, promisingly, prototype testers rated both product iterations most highly in this category. To further our market research, with Alex's help, we connected with five cafés across Canada to get our product to potential customers. The smaller of the two designs was chosen for distribution due to its aesthetics, size, and likeliness to buy, as rated by survey participants. We disseminated a survey to café owners to collect feedback relating to suggested retail price, popularity amongst staff and customers, and the opportunity to incorporate the bag as part of a gift package.

Finally, to ensure the long-term sustainability of our product, we will be collaborating with GTJ Coffee Sleeves (p. 7) and applying to The Forge, a start-up incubator, to continue developing the product and a business.\* With these next steps, we hope we can continue this work of keeping waste from the landfill and creating unique consumer products in the process.

## Collaborators

We would like to extend our sincerest thank you to our collaborators: Alex Yurek, our Community Project Champion and the President Detour Coffee Roasters; Kate Whalen, our mentor and the Senior Manager of McMaster's Academic Sustainability Programs Office; Mohammad Abdul Aziz and Camilla Gillis-Adelman, our academic supports and course Teaching Assistants; Dr. Lefevre-Schlick Florent, Vignesh Rameshkumar, and Truc Ung, our manufacturing experts and project collaborators from the W Booth School of Engineering Practice and Technology at McMaster University, Faculty of Engineering; and Erin Mallon, Stewardship Technician, Cootes to Escarpment EcoPark System.



Market bag created from jute coffee sack from Detour Coffee Roasters  
Photo credit: Gurinder Sandhu

adequately recycle or compost jute material, thus reuse is the most promising sustainable solution.<sup>3</sup>

Upcycling is a process of reuse in which a waste material is used to create a product of greater value.<sup>4</sup> While jute is ideal for upcycling, the market for upcycled jute products remains untapped. As such, the goal of our project is to create a unique consumer product through upcycling jute coffee sacks.

\*Student authors listed on p. 6 and p.7 will be pursuing incorporation. Those individuals listed with the Collaborators section have provided support but are not pursuing incorporation.

# Upcycling Jute Coffee Sacks with Detour Coffee Roasters: GTJ Coffee Sleeves

## Student Authors

**Josephine Agueci**, Science

**Gabrielle Gonsalves**, Science

**Taddeo Moretti**, Arts & Science

## Community Project Champion

**Alex Yurek**, Detour Coffee

## Overview

Approximately 3.1 million bags of coffee were imported into Canada in 2018, and this number is expected to rise as the demand for coffee increases.<sup>1</sup> Coffee beans are shipped in large bags made from jute, a plant-based fibre that is strong, insulating, and one of the most widely used natural fibres for textile applications.<sup>3</sup> Detour Coffee Roasters, the third largest specialty roaster in Canada, receives over 100 bags of coffee

GTJ Coffee Sleeve bundles ready to be sent out to the five cafés across Canada  
Photo credit: Taddeo Moretti

beans from around the world weekly, yet they are all sent to the landfill because they cannot be composted or recycled in local facilities.<sup>3,4</sup> Given the valuable properties of jute and the significant amount that is going to landfill locally, the goal of our project is to “upcycle” Detour’s jute sacks into a product that is socially, environmentally, and economically sustainable as well as beautiful, functional, and thought-provoking.

## Objectives

1. Design and create a product that would appeal to Detour and its growing customer base
2. Conduct a market analysis to refine and enhance our product design
3. Ensure long-term sustainability of the project and the relationships that have been formed

## Reporting

Following consultation with our Project Champion, who is also the President of Detour, we identified an appealing product and created five different designs for reusable coffee sleeves. With each design holding much promise, we amalgamated them into three final prototypes. We then contacted 12 coffee connoisseurs who varied in age, gender, activity level, socioeconomic status, and environmental consciousness to test our prototypes. Using feedback from our testers, we decided upon one final sleeve design, which features an exterior pocket, a keychain loop, various patterned fabric linings, and the ability to be rolled up and secured by button for compact storage. We produced 25 of these designs and sent them to five cafés across Canada to obtain feedback on pricing, marketing, and willingness to carry our product going forward.

To ensure the long-term sustainability of our project, we contacted thrift stores who were more than happy to provide us with a sustainable source of fabric and buttons, which were otherwise destined for landfill. With help from students enrolled in the manufacturing stream of the W. Booth School of Engineering Practice and Technology, we created an efficient and attainable plan for upscaling the production of our product. In considering other applications, we connected with Conservation Halton to test and explore the effectiveness of jute as a more environmentally-friendly, cost effective option for erosion control and other conservation applications. Following the culmination of this project, our team is planning to combine with the other Upcycling Jute Coffee Bags group (see p.6) to create one business\* centred around creating a positive and sustainable difference in our community. With plans to collaborate with The Forge and/or Enactus McMaster for support, resources, and workspace, the future is brighter than ever for GTJ Coffee Sleeves.

## Collaborators

We would like to extend sincere thanks to President of Detour Coffee Roasters, Alex Yurek. We are beyond grateful for all of his support, mentorship, and business advice. We would also like to thank Josephine’s grandmother, Pina Agueci, as well as Kate Whalen from McMaster’s Academic Sustainability Programs Office, for providing guidance instrumental to our group’s success. Our project would not have been possible without their constant feedback and their invaluable sewing and business knowledge. We would also like to extend our gratitude to Daniel Park from The Forge for his support in business, and the W Booth School of Engineering Practice and Technology at McMaster University, Faculty of Engineering, for their manufacturing expertise. Last but not least, we would like to thank all of the individuals who took the time to provide feedback and support for our project.



Final coffee sleeve design components  
Photo credit: Gabrielle Gonsalves

\*Student authors listed on p.6 and p.7 will be pursuing incorporation. Those individuals listed with the Collaborators section have provided support but are not pursuing incorporation.

# Waste-Free Champions: Essential Utensils Kit

## Student Authors

**Sabrina Dasouki**, Science

**Billy Olds**, Science

**Kristal Ramnarine**, Commerce

## Community Project Champions

**Craig MacDonald**, Facility Services

**Adam Chiaravalle**, Sustainable Food Systems Advocate



The waste-free kit we produced  
Photo credit: Sabrina Dasouki

## Overview

Accumulation of plastics and organic waste in landfills is a major issue in North America. Only 10% of all plastic waste in Canada is properly recycled, with approximately 90% of plastics going to landfills, lakes, parks, or oceans.<sup>1</sup> McMaster University produces 1 183 metric tonnes of organic waste annually, where more than 30% could be composted and another 54% could be recycled.<sup>2</sup>

Convenient access to single-use plastic utensils on campus encourages wasteful habits. Also, the lack of awareness about compost bin locations results in potentially compostable items being placed in the garbage bins. Our goal is to create a waste reduction kit that supports waste-free practices and composting on campus.

## Objectives

1. Create a prototype kit with a variety of reusable components, ensuring it is compact and easily accessible for users
2. Gather feedback from students and faculty to enhance the current design, aesthetics, and willingness to use and purchase the product
3. Present a business case to industry leaders at McMaster, gathering suggestions to further improve our product for sale

## Reporting

To begin our product, we produced our first waste-free kit as a prototype, which included a reusable straw, straw cleaner, three organic bamboo utensils, reusable snack bag, a reusable napkin, beeswax food wrap, and a pocket-sized card that lists compost bin locations on campus. From students and staff members, we gathered feedback through a survey about the current design, aesthetics, and degree of usefulness of each item. The prototype was revised accordingly to enhance the willingness to use and purchase our product. Once we created the second iteration of our prototype, we then presented our business case to members of the McMaster and broader Hamilton community at our Course Symposium. To continue our project, we will be applying for The Forge Start-Up Competition in January 2019, as well as approaching students of Enactus to discuss the potential to work with them on this initiative. An unexpected achievement is that we successfully sold three prototypes while conducting our survey sessions and received two requests for purchase. This gives us confidence that we have created a useful and marketable product that has the potential to reduce waste and increase composting, both at McMaster and beyond.

## Collaborators

Sincerest thanks to our Community Project Champions Craig MacDonald, Executive Director of Facility Services, and Co-Project Champion Adam Chiaravalle, for their tremendous leadership and guidance throughout this project. Thank you to Josephine Agueci of Upcycling Jute Coffee Sacks with Detour Coffee Roasters (p.7) for her help with creating felt casings for our final prototypes. We would also like to thank Kate Whalen for providing inspiration and support with our prototype design. Last, but certainly not least, we would like to thank all of those who completed our survey and provided us with feedback to enhance our product design.

# Trees for Hamilton

## Student Authors

**Philippe Alves**, Humanities

**Eric Howarth**, Social Sciences

**Erin Nunn**, Engineering

## Community Project Champions

**Wayne Terryberry**, Natural Lands & Outdoor Recreation

**Abbie Little**, Academic Sustainability Programs



Student volunteers participating in a guided tour of Eramosa Karst  
Photo credit: Eric Howarth

## Overview

Trees are essential for life on earth. In addition to absorbing CO<sub>2</sub> from the atmosphere and providing us with oxygen to breathe, trees also support wildlife and maintain balance within the ecosystem.<sup>1</sup> However, through human activity, the number of trees in our environment is declining at an alarming rate, and humans do not seem to realize their direct impact.<sup>2</sup> Research has shown that engaging young people in environmental conservation efforts, including tree planting, can help develop positive attitudes towards and value for the natural

environment.<sup>3</sup> The goal of this project was to provide an opportunity for youth to engage with local conservation groups to have a positive environmental impact through planting trees and learning more about the ecosystems around us. By providing volunteers with a rewarding and educational experience, we motivated individuals to make sustainable decisions in their everyday lives and continue making a difference in their communities even after the event had finished.

## Objectives

1. Engage Hamilton youth and conservation groups in a joint tree planting event
2. Educate students on the importance of trees, biodiversity, and environmental health
3. Support continuity of future tree planting events through the creation of a transition toolkit

## Reporting

Through collaboration with Trees for Hamilton, a local non-profit organization, the Hamilton Conservation Authority, McMaster University, and Bishop Ryan Catholic Secondary School (CSS), we organized an educational tree-planting event at Eramosa Karst on October 13th, 2018. Prior to the event, we attended an EcoTeam meeting at Bishop Ryan. This involved holding an information session on the importance of trees and their impact on the environment, as well as encouraging the students to participate in our upcoming tree-planting event. On the day of the event, over 45 volunteers from McMaster and Bishop Ryan were in attendance. These volunteers learned how to properly plant trees and contributed to planting over 500 in total. After the planting session, we led volunteers on a tour of the Karst followed by a pizza lunch. By collecting information from volunteers throughout the day we were able to receive feedback through a post-event survey, with one-third of volunteers participating in this survey. When asked about their favourite part of the event, respondents said they enjoyed planting trees (10) and the hike of the Karst (5). Furthermore, 100% of respondents expressed that they would recommend this event to friends, which demonstrates the value of continuing this event in future years. We have created a transition toolkit to help support those who will take on the organization of this event in the future. The toolkit includes a how-to video for tree-planting, a list of important contacts, a proposed timeline, lessons learned, and additional recommendations. To help assist with the financial challenges we faced, such as funding transportation and food, we have applied for a \$500 grant from the World Wildlife Fund. If successful, future organizers will have these funds in combination with the toolkit to organize and further enhance the next tree-planting event.

## Collaborators

We would like to thank our Community Project Champions, Abbie Little and Wayne Terryberry from McMaster University, and Myles Sergeant from Trees for Hamilton, for their guidance and support throughout the entirety of the project. We would also like to thank Miss Kathy Zadovny and the BRIGHT EcoTeam from Bishop Ryan CSS, and McMaster students from DeGroot Green for their integral support during the tree-planting event. Last but not least, we would like to thank every volunteer that came out to this event as it would not have been possible without them!

# Catering Sustainable Events at McMaster

## Student Authors

**Lina Abril**, Science

**Madeleine Seale**, Engineering

**Thomas Siuda**, Engineering

## Community Project Champion

**Catherine Young**, Hospitality Services



Catering event based entirely on a plant-based menu  
Photo credit : Geoff Shaw

## Overview

McMaster's Catering Services (MCS) has already implemented several sustainable measures; from sourcing healthy and allergen-free food, to only using recycled paper products. They are now looking to put even more sustainable practices into action. One significant opportunity is to provide more plant-based options. As demonstrated in the academic literature, plant-based

diets require less land, energy, and water to provide the same number of calories as meat-based alternatives.<sup>1, 2, 3, 4</sup> As such, our aim was to work with MCS to identify opportunities for them to provide their clients with more sustainable options for catered events, with a focus on providing more plant-based options.

## Objectives

1. Educate about sustainable options available through MCS
2. Create opportunities for MCS customers to action sustainable change through catered meetings
3. Pilot at least one sustainable catering initiative, report on the results, and recommended next steps

## Reporting

Our first objective of educating the public on sustainable options available for them during catered events, was achieved by restructuring the current student catering menu with more plant-based alternatives, as well as making these options more accessible and apparent to MCS customers. We were fortunate in the fact that we were able to work on two catered events where our new student catering menu was utilized. During our first piloted event, we learned that while the direct customers were aware of the plant-based options on the menu, those who attend the catered events did not necessarily have the same information. Consequently, we obtained an ingredient list of each item on the menu, which was also made available online. We took this opportunity to create a template for small A-frame menu cards that event organizers could print and display by each catered item at their event. During the second event, we piloted both the menu and the A-frame ingredient cards. We found that an additional, and unintended benefit is that event organizers and attendees could more easily identify plant-based options and food allergens, further supporting the health, well-being, and experience for all. The updated menu, ingredient card template, and ingredient list will be posted on MCS website by January 2019.

## Collaborators

A special thank you to our Community Project Champion, Catherine Young, the Senior Manager of Administration and Catering for McMaster Hospitality Services, for guiding our project and connecting us with other collaborators. Thank you to Paul Hoag, Executive Chef, and Liana Bontempo, Dietitian and Wellness Manager for their help in refining the plant-based menu items. Thank you to Engineers Without Borders and the Academic Sustainability Programs Office for all of their feedback. We are excited to have been able to offer our plant-based menu for their events of Sustainability Night, and a Course Symposium, respectively.

# Students Supporting Students Through the Gig Economy

## Student Authors

**Anita Bharji**, Commerce

**Janelle Treash**, Arts & Science

**Shannon Wu**, Science

## Community Project Champion

**Chris McIntosh**, Gigit

## Overview

In our modern world, technology facilitates the online transaction of goods and services. Currently at McMaster University, there is the potential to use technology to bridge the gap between services that students need and services that students can provide, in both a paid and volunteer basis. As such, the goals of our project were to identify how students can support each other

## Objectives

1. Identify the supply of and demand for knowledge, skills, and abilities from within the McMaster student body
2. Summarize our findings to determine how students can best support each other through the use of the gig economy and technology
3. Share our findings and recommendations with members of the McMaster and Gigit communities

## Reporting

To identify the supply and demand for services at McMaster, in a volunteer or paid capacity, we ran an online survey and a surveying table in the Student Centre that allowed us to engage with over 110 students. We asked participants what services they need, what services they could offer to other students, and if they would use an app or online platform to find and offer services within the McMaster student community.

Summarizing our findings, we found that 61% of students reported a need for tutoring services, with 75% saying this was a service they could provide. Comparably, peer-editing was needed (50%) and could be provided (50%). These findings are not necessarily surprising, considering our study population consists mainly of full-time university students. What is surprising is that with all of the social networks and services available to them, students want additional support. Dissimilar from the first two, the third top service was "random errand/taskmaster." There was significant demand (42%) and supply (42%) identified by participants, suggesting that students can use assistance when life gets busy but could also see this as a way to earn some additional income; students are receptive to flexible and ambiguous jobs. Lastly, there was a strong demand and supply for creative jobs. The interest in music (24%), graphic design (18%), and photography/videography (20%) indicates that there is likely an idling capacity of creative hobbies that students can address through the coordination of skills. Other popular services included: life mentor, career advisor, chef, and language instructor. When asked, 74% of respondents said they would use a McMaster-centred platform that consolidates these services (24% were unsure; 2% would not). The strong student support is encouraging and we are happy to share our findings and recommendations to leverage technology to help students support students at McMaster.

## Collaborators

We would like to thank the team at Gigit: Christopher McIntosh, President of Gigit and our community project champion, Christian Paetkau and Mil Kovacevich for supporting us through our project and for teaching us about their work in supporting and fostering the gig economy. We would also like to thank all of the students who engaged with us through our survey and conversations on campus, and our sustainability mentors who helped guide our project.



Students participating in the gig economy. Pictured: a tutoring session, photoshoot and coffee run  
Photo credit: Shannon Wu

and how technology could help connect them. Our research serves as a link between student needs and technological resources, since our results informed Gigit, a local tech company that facilitates online networks for gigs, about how the platform can find a sustainable, supportive function within student life.

# Towards a Sustainable Campus: Green Room Certification (GRC) in Residence

## Student Authors

**Katelynn Blowe**, Humanities

**Kathy Xie**, Health Sciences

## Community Project Champion

**Monica Polkowski**, Residence Life



The GRC sticker that certified residence rooms receive  
Photo credit : Monica Palkowski

## Overview

Trends show that McMaster students are creating waste where there could have been none. The 2016 McMaster Sustainability Annual Report found that waste diversion rates had improved by 20% in two years.<sup>1</sup> Literature suggests that the approach to rearing “green” habits amongst collegiates should emphasize active participation and awareness promotion.<sup>2</sup> This project aims to bring the Green Room Certification (GRC) program into residence, specifically targeting students in the Outdoor Leadership Living Learning Community. Through this project, students receive GRC by meeting specific criteria on the GRC checklist, which has been adapted from other schools who have

already implemented the GRC program.<sup>3,4</sup> Each item on the checklist describes an action/habit that promotes sustainable living (e.g. I do not open my windows when the air conditioner or heater is running). This workshop and events-based initiative strives to help students maintain a socially sustainable campus and empower them to continue to build on their knowledge after program completion. The goals of our project are to implement the GRC program, educate students about their impact on the world around them, and provide them with the tools to adopt sustainable lifestyles both during and after program completion.

## Objectives

1. Develop and facilitate practical events focused on the needs of students
2. Provide students with knowledge to maintain sustainable living habits after they have left residence
3. Certify the rooms of students in accordance with the GRC checklist

## Reporting

Our group worked with the Mother Nature’s Minions in Residence (p.14) to complete the GRC Launch Event, where we gathered information about students’ current knowledge about living sustainably, perceptions about McMaster’s role in creating sustainable initiatives, and what they wanted to see out of our project’s events. We expected an attendance of 20 students and received four attendees. Following this, we made improvements to increase engagement. Our next event was a “‘Scary’ Movie Night” where we decorated mini compost bins, and our attendance doubled to eight students. At our third workshop, “Trivia and Treat”, which featured sustainability-based trivia with rewards of candy, our attendance doubled again to 16. Our last event, in collaboration with the Mother Nature’s Minions in Residence, was a “Clean & Green” workshop where students made their own cleaning supplies using minimal and natural, non-toxic ingredients. This success of this event exceeded our expectations and brought in 20 students. After the completion of our workshop series, we asked students to fill out the GRC checklist we created at the beginning of our project. In total, 36 students were certified. From their responses, we were able to identify further gaps - for instance, less than 70% of respondents reported regularly composting - that could potentially be targets for future program implementations. The program was wrapped up with an online info-sheet containing tips for sustainable off-campus living and a prize giveaway.

## Collaborators

We would like to give special thanks to our Community Project Champions, Monica Palkowski and Abigail Little, along with Liana Bontempo who supported our work. Furthermore, we would like to thank all of the students for coming to our events and being engaged in our project. We would also like to thank the Sustainability 3S03 instructional team for their constant support and providing us with the opportunity to implement a sustainable change on our campus.

# Mother Nature's Minions in Residence

## Student Authors

**Navjot Mann**, Science

**Alexander Mo**, Engineering

## Community Project Champion

**Monica Polkowski**, Residence Life



Students learning how to make green cleaning supplies  
Photo credit: Abigail Little

## Overview

For most students, going to university is often their first time living independently.<sup>1</sup> This makes it vital to help the students grow their own sustainable habits through education and showcasing methods of sustainable living before other habits form.<sup>2</sup> The goal for this project was to instill sustainable food, transportation, and cleaning habits in residence students enrolled

in the Green Room Certification (GRC) program, a program that provides opportunities for students to learn how to decrease their impact on the environment while in residence. By doing so, we wish to have an ongoing GRC program for future years' residents, enabling students to become sustainable ambassadors and role models for sustainable living amongst their peers.

## Objectives

1. Engage residence students in experiencing sustainable food options on campus
2. Create an opportunity for students to explore and use various transportation systems in Hamilton
3. Provide students with the tools and knowledge to be able to live sustainable lives



Exploring Hamilton's picturesque landscape on a hike to Sassafras point.  
Photo credit: Alexander Mo

## Reporting

During October and November, we hosted three major sustainable living events as part of the GRC program which included: a sustainable food tour, a hike to Sassafras Point and bus ride back to campus, and a workshop centered around creating sustainable cleaning supplies. Students joined us to tour three restaurants on campus to learn about sustainable eating habits, meet the chefs in charge, and also try some samples. Of the attendees, less than half had previously visited one of the sustainable eateries, but all attendees said that they would go back to at least one of them after the tour. We had eight students to join our hike to learn about Sobi and ride the HSR. One student said, "this is my first time using the buses in Hamilton," demonstrating the impact of our event. Students learned about the impacts of harmful chemicals and knew exactly how to make green cleaning supplies. One student said, "if you can put them in your body, the ingredients are safe to use and safe for the environment." All of the students said they will continue to make and use these products and would recommend the workshop to other friends.

## Collaborators

We would like to give special thanks to our Community Project Champion, Monica Palkowski, and to Abbie Little and Liana Bontempo, for supporting our work. Furthermore, we would like to thank all of the students for coming to our events and being engaged in our project. We would also like to thank the Sustainability 3S03 instructional team for their constant support and providing us with the opportunity to implement a sustainable change on our campus.

# NoLunchMoney: Enhancing Student Engagement and Participation

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## Community Project Champions

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## Overview

The current amount of food waste on McMaster campus makes distributing the leftovers within our community a beneficial movement. NoLunchMoney is a student-led initiative that aims to rescue high-quality food that would otherwise go to waste, by giving it to students. The primary goal of NoLunchMoney is food security and food accessibility for all students on campus - this is done through event promotions and letting students know of free



Collage of social media posts promoting various McMaster club events through NoLunchMoney

Photo credit : Shirin Talebi, Dominika Piskorz, and NoLunchMoney Instagram

food sources on campus whenever available. However, there have been challenges in carrying this initiative out to the student body of McMaster University. The goals of our project are to establish sustainable connections with McMaster student clubs that host free-food events and to raise awareness regarding their constructive and positive purposes.

## Objectives

1. Increase awareness of and engagement with NLM, specifically by student clubs
2. Understand current levels of awareness and engagement with NLM
3. Create a report of findings, outcomes, and recommended next steps to enhance the impact of NLM at McMaster

## Reporting

We started our project by increasing awareness of and engagement with NLM. Our team launched an online survey to measure students' interests in attending free food events. We were successful in contacting 150 clubs and managed to establish sustainable connections with 35% of them. To address the response from our survey, we identified two approaches that were most effective for MSU clubs to partner up with NoLunchMoney organization. One approach consists of clubs contacting NoLunchMoney through their Facebook page and informing them of upcoming events. The clubs provide a brief description of their event and food available. Then, NoLunchMoney promotes their event via social media to increase attendance and reduce food waste. The second approach is for the event coordinators. For the second approach, an NLM team member typically picks up the food and brings it to a central hub, such as the Student Center or a library. To conclude our project we consolidated a report of our findings from the outcomes of engaging with student clubs and compiled a list of recommendations for next steps. Our primary proposal for NLM is to apply to become an official MSU club, which will address the three main barriers that we identified through our work: secure locations, consistent funding, and official reputation on campus.

## Collaborators

Our group collaborated with a diverse range of people in the following order. We start by establishing personal relations with MSU clubs to inform them about the initiative and how it works. We introduced them to NoLunchMoney's contact system and the method of operation to create a working relationship between the clubs and NoLunchMoney. We gathered information from clubs on whether they hold free food events, if they are aware of this initiative and if they are interested in participating.

# Hungry for Knowledge: Student Food Insecurity at McMaster University

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## Community Project Champions

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**Stephanie Bertolo**, McMaster Students Union



Foods that are stereotypically consumed when dealing with food insecurity  
Photo credit: An'am Sherwani

## Overview

Meal Exchange is a nonprofit organization that tackles issues such as student food insecurity in Canadian post-secondary institutions. Food insecurity is understood as the limited or inadequate access to food due to insufficient finances. In 2016, Meal Exchange worked with five university campuses (Brock, Calgary, Dalhousie, Lakehead, Ryerson) to survey students using the Hungry for Knowledge survey guide and framework. Among the campuses, they found that 39% of all students experienced some degree of food insecurity.<sup>1</sup>

An online survey was created for McMaster's student population for the purpose of evaluating the prevalence of student food insecurity and determining the groups most at risk. The survey also questioned about the various barriers and factors that influence and contribute to the emergence of student food insecurity. The goal of our project was to gain knowledge and understanding about the social issue of student food insecurity through survey data collection.

## Objectives

1. Determine a prevalence estimate of students experiencing food insecurity
2. Identify key factors that contribute towards student food insecurity
3. Raise awareness about various services that address and help reduce the issue of student food insecurity

## Reporting

Survey responses were obtained by advertising through social media, posters around campus, and class talks. 185 full responses were analyzed from the 204 that we received. Our findings indicate that 39% (71) of respondents have experienced moderate\* food insecurity while 12% (22) experienced severe\*\* food insecurity. The major contributing factors included costs of food (51%), limited time to prepare meals (43%), the lack of healthy and diverse food options on campus (40%), and inadequate financial support (29%). Students also reported that food insecurity impacted areas of life such as their physical (44%) and mental health (42%), along with their social life (27%) and their grades (23%). The most common experiences of food insecurity were relying on low-cost foods, not eating healthy balanced meals, and prioritizing other financial needs before securing adequate food. This resulted in skipping meals and sometimes not eating the entire day. Of those who identified as food insecure, only 24% utilized the programming and services at their disposal such as a food banks or hunger relief. These findings have been shared with established MSU student clubs and services to strategically use the results for enhancement of their services. Students who experience food insecurity can become informed of the various clubs and services at their disposal; through continuous promotions and advertising. The increased usage of these services and clubs can aid in the reduction of food insecurity at McMaster. Further exploration and follow-up are currently in progress as this study will be continued in 2019. These meaningful contributions are in support of Meal Exchange's development of a provincial strategy, to generate further dialogue and actions to address food insecurity, and to ultimately swing momentum towards the student food movement.

## Collaborators

We would like to thank our two Community Project Champions for their guidance throughout the term: Merryn Maynard, Programs and Operations Co-ordinator of Meal Exchange, and Stephanie Bertolo, Vice President of Education at McMaster Students Union. In addition, we are grateful to Tina Moffat and Dianna Williams for helping to develop the survey and ethics application in advance of our project, as well as for their continuing work on this study. We appreciate the MSU clubs and services for their assistance in promoting our survey. Most importantly, we thank the students who dedicated their precious time to completing our survey.

\* Significant food access issues, including income-related concerns and reduced quality and/or quantity

\*\* Extreme food access issues, including income-related concerns and reduced quality and/or quantity

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