

YEAR PLAN 2020-2021

SRA Science

Danial Aminaei
Christy Au-Yeung
Gail Del Castillo
Denver Della-Vedova
Simran Dhindsa
Armin Sariaslani
Simranjeet Singh

Submitted on July 7th, 2020



OFFICE OF THE SCIENCE CAUCUS LEADER INTRODUCTION

Hello, our names are Simranjeet and Christy and we're both very excited to be returning to the SRA this year as science caucus co-leaders. Despite the unique circumstances of this year, we have a lot planned. We acknowledge the complexity of the situation and have spent time adjusting the SRA Science year plan to ensure it is feasible.

We have many big goals that we hope to accomplish and will try to continue even after our terms have completed. Evidently, sustainability is a large focus of our year plan (objectives 3, 6, 7, 8) as is student education enhancement (objectives 2, 4, 5, 7, 9). We hope that by implementing our ideas, we will be able to create equitable changes which benefit all groups on campus.

Our goal is to actively seek out student opinions and represent voices that may be traditionally underrepresented. Furthermore, we would like to make more informed decisions regarding the goals that we're working on while continually seeking student feedback and modifying our goals as we progress. We believe the SRA is an institution which can do more to engage with students, thus we hope to work with other caucuses extensively to increase our impact and better represent students.

We would like to thank everyone involved for their support with our initiatives and hope we can report back with our many successes throughout the year.

Best,
Christy Au-Yeung and Simranjeet Singh
SRA Science Caucus Co-Leaders 2020-2021

GOALS

Objective 1	Boosting Student Engagement
Description	Student engagement is a crucial aspect of university life. Engagement strategies will focus on improving approaches to advance student integration into the university experience and to internalize and assign meaning to those experiences.
Benefits	<ul style="list-style-type: none"> - Development of new ways of working with students - Elevating the student voice in the university decisions - Advocacy for the MacSci Community and its needs
Difficulties	<p>Challenges due to the ongoing COVID-19 pandemic</p> <ul style="list-style-type: none"> - Limits the possibilities of in-person interaction with students (such as class talks or in-person office hours). <p>Lack of incentive for participating in the surveys</p> <ul style="list-style-type: none"> - Could be resolved by setting up giveaways and doing raffles among those who participated in the surveys.
Long-term implications	<ul style="list-style-type: none"> - Increased satisfaction from the work of the assembly - Making sure that student values & opinions are heard
How?	<p>Increasing the Social Media Presence</p> <ul style="list-style-type: none"> - Two caucus members (Danial Aminaei & Gail Del Castillo) will be in charge of handling the online platforms. - Introducing the SRAs to the MacSci Community. - MSU SRA Assembly 101 Video (Briefly explaining the structure of MSU, its services and the role of the assembly for the incoming first-years and those who wish to learn more about these topics). - Advertising the available peripheral opportunities in the assembly (e.g. seats on various MSU committees). - Posting a summary of each official meeting (starting from September) and continuing to share the link for watching the entire session. - Re-Designing the SRA Science section on the McMaster Science Society Website. <p>Conducting Surveys</p> <ul style="list-style-type: none"> - Determining the best way to reach out to students to hear their concerns. - Assessing the level of satisfaction with the current MSU services and provided resources. - Surveys can be shared to users of MSU services <p>Creating a Suggestion Drive</p> <ul style="list-style-type: none"> - Could be a short google form or a survey monkey

	<ul style="list-style-type: none"> - Safe and anonymous platform for students to share their ideas, and give productive feedback to their representatives.
Partners	VP Administration, McMaster Science Society (MSS), MSU promotions coordinator, Michael Wooder

Objective 2	Student extenuating circumstances policy
Description	Mental health and wellbeing for students is a critical concern that should be addressed by all levels of government, McMaster University, and the McMaster Students Union. Currently there is no standardized method for students requiring accommodations for extenuating circumstances needing immediate attention. These students are unable to get immediate support from SAS and there isn't any clear guideline for how or what accommodations professors can make.
Benefits	<ul style="list-style-type: none"> - Prevents students from embarrassment or having to reach out to professors on an individual basis during difficult times - Streamline process also aid professors in deciding whether or not these circumstances are genuine/ true - Students only need to provide documentation once (for instance in the case when needing accommodations due to a family death)
Difficulties	There are unclear protocols and support regarding academic accommodations/ support for students facing unexpected extenuating circumstances.
Long-term implications	Professors are better able to accommodate students in a consistent and fair manner. Students in extenuating circumstances can be better supported academically.
How?	<p>Discuss the current protocols for students with extenuating circumstances</p> <ul style="list-style-type: none"> - Understand the current accommodations that are being done for students with extenuating circumstances (Science academic office and Student Accessibility services (SAS)) - Understand current barriers to streamlining a process for accommodating students with these circumstances - Understand what accommodations can be made for these students

	<p>Consult with professors/ other stakeholders regarding accommodations that can be made</p> <ul style="list-style-type: none"> - Reach out to professors via e-mail, discuss with academic counsellors - Create flexible guidelines which can be followed for different situations <p>Create a system/ portal where students can submit requests for extenuating circumstances</p> <ul style="list-style-type: none"> - Can be similar to the way that an MSAF is submitted or can be hosted on a website specific to the Science faculty - Enable the submission of documents (ex: doctor's note, death certificate etc.) on the portal <p>Inform professors and students of the new policy</p> <ul style="list-style-type: none"> - Update science websites and promote new policy on social media - Send out e-mails to professors and academic counsellors
Partners	Science Academic Office, Dean of Science, Student Accessibility services

Objective 3	Environmental Sustainability Initiative/Fund
Description	With the Fall school term happening online, we want to continue providing opportunities for students to learn about and live a sustainable lifestyle from wherever they are.
Benefits	<ul style="list-style-type: none"> - Educates students about different ways to act sustainably independently - Provides students resources (information and possibly financial) to create sustainable changes that they may not have endeavoured in otherwise
Difficulties	<ul style="list-style-type: none"> - Adequately promoting these resources if providing financial resources for sustainability projects - Providing adequate financial support to students who may want to endeavour in larger sustainability projects (ex: installation of solar panels at home) - Verifying that the money is being used as proposed
Long-term implications	Promotes long-term sustainable lifestyle changes.
How?	<p>Inquire about financial support that can be provided for students to pursue sustainability projects</p> <ul style="list-style-type: none"> - Reach out to partners (listed below) - Determine how to address difficulties relating to providing financial resources (listed above)

	<ul style="list-style-type: none"> - Create a fund that students can access for sustainability projects <p>Brainstorm different sustainability projects that students can complete from their homes</p> <ul style="list-style-type: none"> - Brainstorm various projects can ranging in difficulty/intensity - Brainstorm how these opportunities/ projects can be promoted <p>Promote these projects</p> <ul style="list-style-type: none"> - Work with MSU promotions coordinator to create promotional materials - Reach out to MSU clubs/ services to share promotional material <p>Manage the sustainability fund</p> <ul style="list-style-type: none"> - Ongoing - Potentially integrate with MSU sponsorships and donations committee (amend description for sponsorship and donations committee if so)
Partners	Academic sustainability office, MSU sustainability committee, MSU sponsorship and donations committee, Community partners (ex: sustainable shops around Hamilton area), MSU promotions coordinator, MSU clubs/ services

Objective 4	Continuing the online delivery of the class content in the winter of 2021
Description	<p>The issue: There is a possibility that the classes might be delivered in the traditional in-person format in the winter of 2021. Many of the students are unable to have access to appropriate housing in the Hamilton region due to economical reasons caused by the pandemic. Additionally, even if the authorities decide that the university can return to the regular delivery of classes, many students might still feel uncomfortable about being on campus, especially considering the difficulties of social distancing in our campus.</p> <p>The solution: Considering all the uncertainties around the winter semester, providing accessible education must be a priority of the University. Assuming that the classes move back to an in-person format, All the classes offered in winter 2021 must provide all the lecture content in an online format to provide a choice to the students to continue their education off-campus.</p>

Benefits	<ul style="list-style-type: none"> - Providing all the classes online for the winter semester reduces the on-campus traffic which is in line with social distancing practices. - Many of the students are unable to have access to proper housing during the school year for reasons related to the pandemic and this plan ensures that they are not excluded from receiving the appropriate education needed if the University decides to carry the winter semester as a regular in-person semester.
Difficulties	<ul style="list-style-type: none"> - coordinating all the faculties to ensure the accessibility of classes through alternate online delivery of classes can be challenging.
Long-term implications	<ul style="list-style-type: none"> - This plan acts to ensure equal accessibility to class content if the University decides to return to in class lectures in the winter of 2021. - Additionally this plan ensures that the on-campus traffic remains low even if the University decides to return to in-class lectures by providing an alternate online form of education to many of the students.
How?	<ul style="list-style-type: none"> - This plan requires all the faculty members to utilize the tools they will be using in fall of 2020 to continue delivering the lectures online in addition to in-person classes, if the University decides to return to in-class lectures in winter of 2021.
Partners	<ul style="list-style-type: none"> - Student accessibility services. - Coordination with all the faculties.

Objective 5	Advocate for experiential learning opportunities in the community within curriculum
Description	<p>Learning should not be only limited to a traditional, “in-class” experience. Courses such as Psych 2NF3 and Science 2P03 have instilled experiential learning as a teaching component while also contributing to the community. Students should be encouraged to seek out different opportunities to further develop skills such as leadership, collaboration, innovation, empathy etc.</p> <p>Goals described in this initiative are related to those of Objective 7.</p> <p>With Fall 2020 delivered online, students may feel further disconnected to their learning experience. Increasing remote experiential learning opportunities may be able to foster a sense of belonging</p>
Benefits	<ul style="list-style-type: none"> - Increased involvement within the community

	<ul style="list-style-type: none"> - Provide opportunities for students to develop professional relationships with faculty members and other students
Difficulties	<ul style="list-style-type: none"> - Limited to only virtual/remote opportunities due to the COVID-19 pandemic - Involvement with faculty members may be difficult due to their already busy schedules.
Long-term implications	<ul style="list-style-type: none"> - Increased awareness to contribute to the community - Fostering future leaders with experience in the community
How?	<ul style="list-style-type: none"> - Obtain evidence-based research of benefits of experiential learning and styles in the classroom - Inquire about existing experiential learning opportunities (volunteering, research, workshops etc.) <ul style="list-style-type: none"> - Finding a way to centralize that information for easier access - Encourage professors to motivate students about available opportunities or how to get involved - Consult appropriate partners about the feasibility of incorporating more community-based learning within existing courses.
Partners	MSS VP Academic, Science Academic Office, Dean of Science

Objective 6	Solar Panel Initiative
Description	<p>This is a continuation of an initiative started by Simranjeet during the 2019-2020 SRA. It involves the installation of a small solar panel array and lights in front of the Burke Science Building (BSB). A lot of the work for this project has already been completed, as the decorative lights, batteries, solar panels, and various other pieces of equipment have been bought. The only remaining task is to complete installation, which will be done in partnership with McMaster University. McMaster will be covering costs of logistics as well as installation. SRA Science will look at potentially expanding the project to a size greater than it is now to help further the goal of raising awareness of environmentally friendly power sources.</p>
Benefits	<ul style="list-style-type: none"> - Gives decorative lighting in front of the BSB entrance during dusk. - Gives a visible, clear example of environmentally friendly power for students.

	<ul style="list-style-type: none"> - Hope is that students will be inspired to learn more about environmentally friendly power sources and view them as feasible
Difficulties	<ul style="list-style-type: none"> - Coordinating logistics of installation due to the COVID-19 pandemic. - Simranjeet will be meeting virtually with Joe Emberson from Facility Services to coordinate installation.
Long-term implications	<ul style="list-style-type: none"> - Increased awareness of environmentally friendly power sources among students. - Increased appeal of BSB to students due to the lights installed on the facade of the building. - Potential growth of the project by adding more solar panels and lights if funding is procured.
How?	<ul style="list-style-type: none"> - Solar panels, lights, batteries, and other supplies have already been purchased. - McMaster University will work to cover any costs and labour related to construction of the project.
Partners	<ul style="list-style-type: none"> - Joe Emberson, the Director of Engineering Operations from Facility Services and Bob Shaw, among others.

Objective 7	Increasing Sustainability-centered Education at McMaster
Description	<p>A large initiative which we hope to focus on this year involves advocating to increase education about sustainability and sustainable practises moving forward. To help achieve this, we have begun to have consultations with various McMaster faculty. Over the next few weeks and months we hope to learn a lot more about what courses exist that prioritize sustainable education, how they implement those principles, and potentially if those ideas can be spread to more courses. Our goal is that future students will be able to benefit from more sustainability-minded curriculums as well as more experiential learning that will give them a more hands-on understanding of sustainable engineering, design, practises, and education.</p>
Benefits	<ul style="list-style-type: none"> - Students will have more experiential learning opportunities with the Hamilton community. - Students will have education which takes a sustainable lens and can shed light on sustainable practises. - Will result in quantifiable changes to McMaster from new initiatives in various classes if successful. These changes will result in more sustainable infrastructure and practises within the McMaster community.

<p>Difficulties</p>	<ul style="list-style-type: none"> - Logistics of liaising with McMaster and Hamilton community officials as a result of the COVID-19 pandemic. - May face restrictions due to unwillingness of some professors to implement our ideas. - Requires educators to take an active role to adjust and change some courses to increase their sustainability focus. This will require working with like-minded faculty who may not be numerous. - Ensuring changes made to classes are equitable and accessible to all students, no matter their age, sex, gender identity, sexual orientation, race, ethnicity, class, ability, international/domestic status, or other factors.
<p>Long-term implications</p>	<ul style="list-style-type: none"> - Increased awareness of environmentally friendly practises, policies, and initiatives within McMaster student body and faculty. - Benefit of a more sustainably-minded, environmentally aware, and climate action-taking university. - Expansion of current and new environmental projects at McMaster to create a more sustainable community. - Greater number of experiential learning opportunities for students. - Greater involvement in the greater Hamilton community from students as a result of the experiential opportunities. - If costs are associated with the changes, the university may be less likely to support the initiatives, especially considering the consequences of the COVID-19 pandemic.
<p>How?</p>	<ul style="list-style-type: none"> - Collaborating with various professors, faculties, and departments who may be interested in supporting the initiative. - Becoming informed about current initiatives which exist at McMaster. - Working to find community partners who may be interested in supporting initiatives. - The Office of Community Engagement will help coordinate between different McMaster and external contacts. - Solving logistics of changing various courses if ideas are well received by university. - Advocating for university and external partners to cover any costs that may be incurred.

Partners	<ul style="list-style-type: none"> - Rodrigo Narro Perez, Kate Whalen, and Dr. John Machlachlan from the School of Geography and Earth Sciences - Sashaina Singh and Jay Carter from the Office of Community Engagement - Dean of Science Dr. Maureen MacDonald - Vice Provost (Faculty) Dr. Kimberley Dej
----------	--

Objective 8	Improving Waste Management at McMaster
Description	In the past few years we've seen many improvements in our waste management including the re-organization of waste streams and increased number of compost bins. We propose to promote proper disposal techniques (ex: promoting what items are recyclable and which are not) and increasing compost bins in libraries and common areas when courses are offered in person again.
Benefits	<ul style="list-style-type: none"> - Stated in Long-term implications.
Difficulties	<ul style="list-style-type: none"> - Recent changes have already been made in waste management and these changes may not be a high priority at this time - Many different services manage waste (hospitality, residence etc.) and it will be difficult to unify the efforts being made - Increased composting bins will require higher costs (due to needing to send the compost to the proper sites and pick up) - The impact of these changes long term are difficult to measure
Long-term implications	<ul style="list-style-type: none"> - Waste sorted better by students. - Less environmental impact because less waste is produced. - Students and faculty will be more aware of how to sort waste which they will take with them to other settings.
How?	<ul style="list-style-type: none"> - Discuss with relevant stakeholders what changes are feasible and the potential timeline - Research the additional costs (financial and otherwise) of these changes - Implement these changes when school is in person
Partners	<ul style="list-style-type: none"> - Carlos Figueir of Facility Services - Liana Bontempo of Hospitality Services

Objective 9	Advocating for an Honours Pathway for the Medical Radiation Sciences Program
--------------------	---

Description	<p>The Medical Radiation Sciences program directs students towards a specific career path with little outward mobility. Giving students the option of an honours pathway will allow them to learn more deeply about health practises, pathologies, as well as the engineering and physics behind the devices they are taught to operate. With this pathway, future students would be able to enter Master's and/or Ph. D. programs in which they conduct research related to Medical Radiation Sciences, or still go through the traditional path into the hospital workplace.</p>
Benefits	<ul style="list-style-type: none"> - Would allow great diversity in job prospects of students. - Students may enter fields where they help develop new technologies related to their field or conduct research in regards to imaging of pathologies. - Will still give students the security of the traditional path into the hospital workplace. - Would further differential the Medical Radiation Sciences program from college radiation therapy, radiography, and ultrasonography programs which would not offer such diversity of outcome for students.
Difficulties	<ul style="list-style-type: none"> - Would require large additions to the program through new courses, new instructors, potential restructuring of the program, and changing the marketing of the program as well.
Long-term implications	<ul style="list-style-type: none"> - Students in the Medical Radiation Sciences program would benefit from job security but also significant upward mobility to fields in which they conduct research or are involved in design of medical imaging devices. - Differentiation of McMaster-Mohawk Medical Radiation Sciences program from college-only streams offered by other educational institutions.
How?	<ul style="list-style-type: none"> - As this is a very complex prospect, the current goal is to conduct research to better understand feasibility of this initiative, how it would be implemented, logistical considerations to be had within the program, and if there is sufficient student demand for such changes. - Surveys will be administered to students to judge student demand. - Meetings to be held with the School of Interdisciplinary Sciences at McMaster as the Faculty of Health Sciences of Mohawk College to gauge feasibility, logistics, and if there is institutional support.

Partners	<ul style="list-style-type: none"> - School of Interdisciplinary Sciences (McMaster University) - Faculty of Health Sciences (Mohawk College) - Vice Provost (Faculty) at McMaster University Dr. Kimberly Dej - Dean of Health Sciences (Mohawk College) Ms. Laura Thomas - Medical Radiation Sciences professors such as Ms. Alana Trainor, Ms. Sandra Charbonneau, Mr. Dwight Mountford, Ms. Lyndsay Simmons, Ms. Leslie Murray, Ms. Tara Blasziński among others.
----------	--

Long-term planning

Overarching Vision 1	More Developed Sustainability Frameworks
Description	We hope to advocate for our waste management, sustainability fund, and sustainable education initiatives beginning this year. This work will both be continued through our individual action plans and by supporting future SRA members. The goal is to create a McMaster community more informed about environmental concerns while also partaking in initiatives to reduce our ecological impact.
Benefits	Refer to the Objectives 3, 6, 7, and 8.
Year 1	<ul style="list-style-type: none"> - Surveys will be administered to students to judge student demand - Begin consultations in regards to introducing a sustainability lens in more courses. - Learning about current sustainability initiatives at McMaster. - Reach out to community partners, professors, and other parties for partnerships. - Inform ourselves on McMaster's waste practises and implement an action plan of how to improve waste management after pilot project slated for Winter 2021 term. - Begin research related to how a Sustainability Fund would operate, its guidelines, and potential sources of funding. - Conduct research to determine if there was a beneficial impact on McMaster as a result of the Solar Panel Initiative.
Year 2	<ul style="list-style-type: none"> - Decreasing waste produced by MSU services, encourage reusing materials

	<ul style="list-style-type: none"> - Implement sustainability initiatives in courses. - Implement findings of the waste management pilot project. - Further research sources of funding and being implementing the Sustainability Fund. - Evaluate and carry out sustainable initiatives that can be carried out in the grind and union market. - Begin planning for expansion of Solar Power Initiative or another initiative related to environmentally friendly power sources if the original Solar Power Initiative was deemed beneficial.
Year 3	<ul style="list-style-type: none"> - Create policies for MSU services to decrease waste. - Finish implementation of Sustainability Fund. - Research sustainability initiatives that can be implemented in residence life. - Complete physical construction of a second environmental power initiative if the original solar power initiative found to be successful.
Partners	Refer to Objectives 3, 6, 7, and 8.

Overarching Vision 2	Improving Educational opportunities for Students
Description	The general goal of this vision is to increase resources for students during personal emergencies, supporting students if online classes remain through Winter 2021, and creating a more sustainability oriented curriculum with more experiential opportunities.
Benefits	Refer to the Objectives 2, 4, 5, 7, and 9.
Year 1	<ul style="list-style-type: none"> - Reaching out to community partners/professors/researchers/ hospitals in the Hamilton area to consult on educational opportunities that can be implemented in current courses. - Planning phase for modification of current courses - Consultations for creation of new courses with educational opportunities. - Planning phase for the new courses.
Year 2	<ul style="list-style-type: none"> - First year in which modified current courses are held - Finalizing plans for newly created courses and modifications to existing programs. - Feedback would be taken from students regarding success.
Year 3	<ul style="list-style-type: none"> - First year in which new courses and modified programs are held.

	- Feedback would be taken from students regarding success.
Partners	Refer to Objectives 2, 4, 5, 7, and 9.

Overarching Vision 3	Increased MSU/ SRA engagement
Description	Traditionally we have seen pretty low student engagement with the SRA. We would like to not only promote the function of the SRA but also improve the efficiency of the methods used to collect student feedback.
Benefits	<ul style="list-style-type: none"> - Refer to Objective 1 - Gathering more feedback from students in a more effective manner would allow us to better represent student voices.
Year 1	<ul style="list-style-type: none"> - Meeting recaps - Researching and implementing new methods to collect student feedback
Year 2	<ul style="list-style-type: none"> - Integrate student feedback collection on the MSU website - More accessible meeting minutes
Year 3	<ul style="list-style-type: none"> - Changing the way that MSU committees are promoted and MSU members can join (perhaps a way that is less intimidating, increase student interest in joining these committees)
Partners	Refer to Objective 1

GOALS to strive for

List 5 things that you would like to have prepared for the beginning of September

- Email Dean of Science regarding changes in science faculty student extenuating circumstances policy
- Finished installation of currently bought supplies for Solar Panel Initiative
- Began liaising with Dr. Kim Dej in regards to having an Honours Medical Radiation Sciences stream
- Began consultations in regards to introducing more sustainability and experiential education in courses.
- Clear management of social media by SRA Science caucus members.

List 5 things you would like to have completed during the fall term (1st)

- Ascertained specific number of professors willing to assist in experiential learning and sustainability education initiatives

- Begin planning with the University Planning Committee about implementing proposed changes to courses.
- Conducting surveys to better understand if there is a desire for Honours stream within Medical Radiation Sciences and if there is a long-term benefit.
- Begin planning with Mr. Figueir for the Waste Management Initiative assuming physical classes will resume in Winter term.
- Planning for support systems in the event that classes are still online in Winter 2021.

List 5 things you would like to have completed during the winter term (2nd)

- Begun research into effectiveness of waste management at McMaster.
- Done pilot project related to Waste Management initiative.
- Doing research to ascertain what courses and new educational components would compose an Honours stream in Medical Radiation Sciences.
- First stages of implementation to course outlines so to have a more sustainable lens. We foresee that no changes would be implemented until the following academic year in even the most optimistic circumstances.
- First courses expected to contain greater experiential components to be finalized and ready to begin by the next academic year. This is also assuming the most optimistic predictions.

Master Summary

As a result of the complications caused by COVID-19 pandemic and the variability of timeframes due to the number of parties involved, the SRA Science caucus felt it would not be possible to have a month-by-month breakdown of our year plan. We hope to work off our goals based off of the September, end of fall term, and end of winter term goals as laid out in the previous section.