MacPherson Student Partners Posting – Winter 2020

In 2013-14, the Arts & Science Program and the MacPherson Institute (then known as MIIETL) collaborated to create "student scholar" positions for students who are interested in pedagogical research and innovation. Since this time, a wide range of students from across campus have contributed to the enhancement of teaching and learning at McMaster by participating in projects run at or in partnership with the MacPherson Institute. Members of the student partner team have contributed to the design and development of new courses, helped to create resources for faculty and students, and collaborated with staff and faculty partners on research projects related to teaching and learning.

Several have also co-authored research articles and conference presentations related to their work. Encouraged by these successes, we're thrilled to continue the student partners program in Fall 2019. We're currently looking for students to work on a number of projects. Some of these are already underway, while others are just being formulated, so students will have opportunities to enter into the work at the stage that is most of interest to them. These positions will involve 25-125 hours of paid work between January 2020 and April 2020. The specific number of hours worked will depend on the project.

Projects for which student partners are currently being recruited are described on the following pages. If you are interested in filling one of the student positions, you will be asked to identify **ONE to THREE** of these projects and write a brief (~250 word) interest statement for each. These project interest statements should include the following:

- A description of why the project seems interesting/important to you. (Why do you want to join the project team? What are your goals in relation to the project?)
- A proposal for the role you might play on the project team. (What might you *do* to develop the project and help it meet its goals? What work do you see yourself carrying out?)
- An indication of the skills/experiences/interests/perspectives that you'd bring to the project team. (Why are you a good fit for this project?)
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To apply, submit your project interest statements, along with some information about yourself, using the following application form:
https://surveys.mcmaster.ca/limesurvey/index.php/623583?lang=en

Any student (undergraduate or graduate) enrolled at McMaster University is eligible to be a Student Partner. While prior experience with teaching and learning research/practice would be an asset, it is NOT required. We're interested in working with a wide variety of students with a range of backgrounds and experiences, including members of equity seeking groups. Some projects do indicate preferences for students with particular experiences, skills, or educational levels, so be sure to read the project descriptions carefully and make the case for why you would be a good fit.

Applications MUST be received by **22 November 2019 at 4:30p.m**. to be considered.

Further information about the student partners program, including guidelines for the application process, can be found in the Student Partners Handbook. If you have any questions about the student partner team, or about the MacPherson Institute and its work, please contact **mi_sap@mcmaster.ca**.

Project Descriptions: Fall/Winter 2019-2020

- Engaging Undergraduate Students in Learning
- Evaluation the Research Shop's training pilot
- Integrated Arts (iArts): construction and implementation of a proposed transformative curriculum
- CityLAB Semester in Residence Ambassador Project
- A Test Archive and Analysis System for Level 1 Chemistry
- Translating Critical Knowledge: Annotating Social Justice Scholarship of Teaching & Learning
- Prior experience in language learning
- Refining the SIS Teaching Assistant Development Program

Engaging Undergraduate Students in Learning

Teaching/instructional strategies are used by instructors to help students become independent, strategic learners. Undergraduate courses taught at McMaster are diverse in their teaching strategies. However, students may often feel overwhelmed by the different teaching strategies implemented across their courses. Consequently, students may not be able to best utilize these teaching strategies for their learning. This project will invite Student Partners to collaborate with MSU Macademics to create an informative miniature 'Guidebook' similar to the "New Faculty Guide to Teaching & Learning at McMaster" and reflecting the values of Macademics' Academic Resources. The goal of this project will be to develop a guidebook to be published on both the Macademics webpage and the MacPherson Institute website that will provide academic resources to undergraduate students in the context of teaching and learning at McMaster University.

Student partners will help develop the guidebook through conducting literature reviews, focus groups/online survey, interviews with McMaster faculty and other experts, and researching areas of interest (e.g. pedagogy, campus resources, learning innovations) to compile a thoughtful and student-centered guidebook to be used by undergraduate McMaster students. The guidebook will present an updated collection of evidence-based research, campus information (e.g. library resources and hours), student testimonials, and strategies for students.
Student Partners will work with the MSU Macademics team, most predominantly with service Coordinator, Fairuz Karim. Student Partners will also work with Dr. Melec Zeadin, MacPherson Educational Developer, to develop and reiterate project aims throughout the process.

All students are welcome to apply for this project. Experience in research, writing, and digital design will be of great use, as will an enthusiasm for resource dissemination and an interest in advocacy for undergraduate student success.

We anticipate that this project will involve approximately 25-50 hours per student *(Please note that this is only an estimate. A more precise approximation of hours will be provided to successful applicants before they begin.)*

Applicants should be 3rd, 4th, or 5th year undergraduate students.

Evaluation the Research Shop's training pilot

The McMaster Research Shop recruits, trains, and supports teams of graduate and upper-year undergraduate students to conduct research for Hamilton community organizations. An ongoing challenge has been to provide effective, accessible training for our volunteers in the theory and practice of conducting community-based research. We're in the process of upgrading our training model to include an Avenue to Learn course accompanied by in-person workshops. The Research Shop Coordinator (the primary partner) is in the process of developing this training program and will pilot it with Winter 2020 volunteers.

The goal of the Student Partnership is to conduct an evaluation of the Winter semester's training pilot. We would like to, a) assess the effectiveness of the training pilot in facilitating learning, and b) receive recommendations to improve our training based on volunteer feedback and best practices of learning. This project would likely involve a review of literature relating to best practices in online learning and in teaching community-based research. It will also include designing and implementing a plan to evaluate the Winter 2020 training pilot, including data collection with Research Shop volunteers. Finally, the student will write an evaluation report based on their findings and provide recommendations to improve the volunteer training curriculum and modes of delivery.

This project is best suited to students interested in community-based research, evaluation, and student-centered learning. The student will ideally demonstrate proficiency in designing Avenue to Learn courses and have some experience or familiarity with program evaluation and qualitative research methods.

We anticipate that this project will involve approximately 51-75 hours per student *(Please note that this is only an estimate. A more precise approximation of hours will be provided to successful applicants before they begin.)*

Applicants should be Masters or PhD students.

Integrated Arts (iArts): construction and implementation of a proposed transformative curriculum

The School of the Arts has spent the last year envisioning a new curriculum for the visual and performing arts at McMaster. The program is based is on the core principles of interdisciplinarity; social justice, equity and inclusion through arts-based learning. We are looking for students to collaborate with a team of faculty members who have created a new integrated arts (iArts) program. The partners would be involved in 1) collaboration around the construction of teaching methods and assignments for a series of foundational courses called Perspectives which embody theory and art-based practice; 2) construction and facilitation of student focus groups on campus and off; 3) collaboration on a communication strategy and design of promotional materials for the inaugural year of the program in 2021/22. The partners would be working with the SOTA transformation team: Professors Virginia Aksan, Peter Cockett, Carmela Laganse, Sally McKay, Angela Sheng and Beth Marquis.

We anticipate that this project will involve approximately 25-50 hours per student *(Please note that this is only an estimate. A more precise approximation of hours will be provided to successful applicants before they begin.)*

Applicants should be 3rd, 4th, or 5th year undergraduate students, or Masters/Ph.D. students.

CityLAB Semester in Residence Ambassador Project

CityLAB is an innovation hub that brings together student, academic, and civic leaders to co-create a better Hamilton for all. The CityLAB Semester in Residence (SIR) program is delivered each fall and connects students with City staff who guide semester-long projects focused on city-driven priorities. These positions will be supervised by Dave Heidebrecht, Office of Community Engagement, Randy Kay, CityLAB SIR.

The CityLAB Ambassadors program development project will provide CityLAB SIR alumni with the opportunity to support the continuity of current key projects into 2020, while working to improve subsequent semesters through a collaboration with city staff and community partners to identify and prepare new project material and identify appropriate project scope.

Aligned with McMaster's Principles of Community Engagement, the program—which was pilot last year—will bring a number of benefits to students, staff, faculty, and community partners involved in CityLAB projects and beyond. Students will engage stakeholders and work collaboratively to build out the ways CityLAB SIR operates with city staff and community partners.

Part of the work will involve deepening relationships with community partners to inform possible new project partnerships. Outreach by the students will aim to identify suitable new community partners. Students hired will become more familiar with community engagement and have real-life experience evaluating project potential and creating new programming.

Tasked with formulating the groundwork for constant improvement to the way CityLAB SIR delivers engaged and relevant project challenges, participating students need to be accustomed to working on tight-timelines, interested in developing their professionalism, looking to gain experience with facilitation and communication, able to work independently and employ creativity along with project management skills to deliver meaningful results.

We anticipate that this project will involve approximately 25-50 hours per student *(Please note that this is only an estimate. A more precise approximation of hours will be provided to successful applicants before they begin.)*

Applicants should be 3rd, 4th, or 5th year undergraduate students

A Test Archive and Analysis System for Level 1 Chemistry

We have created a test archive and analysis system (TAAS) based on a decade of previous tests and exams in level 1 chemistry (Chem 1A03 and 1AA3). The purpose of the TAAS is to track the quality of assessments by incorporating measurements of students' performance as metadata generated from

scantron results. The TAAS addresses two major problems in managing assessments for large-enrollment courses: (1) the lack of a systematic feedback mechanism to improve tests over time; and (2) instructors' difficulty in judging which questions and topics students find challenging. In level 1 chemistry, previous tests and exams are posted online for students to use while they study. From surveying our students, we know that these previous assessments are their primary learning tools. Since the TAAS includes a database of 10 years of previous assessments, the next logical step in our research project is to develop the TAAS into a formative assessment tool. Students will use this tool while they study for their tests, with the aim to improve their metacognitive skills and empower them to think critically about their own learning and problem-solving skills. The student partner will work together with Drs. Greenberg, Berti, and Davis to develop this formative assessment tool. A knowledge of computer programming would be an asset.

We anticipate that this project will involve approximately 101-125 hours per student *(Please note that this is only an estimate. A more precise approximation of hours will be provided to successful applicants before they begin.)*

Applicants should be undergraduate students of any level.

Translating Critical Knowledge: Annotating Social Justice Scholarship of Teaching & Learning

One of the Priority Initiatives of the MacPherson Institute is to develop strategies for disseminating teaching and learning scholarship across campus and supporting engagement with and application of this scholarship. A commitment to equity and the respect of diverse perspectives and approaches are also key Institute values, aligned with McMaster's broader priorities to advance equity, diversity, and inclusion.

This project - a collaboration with Alise de Bie (Postdoctoral Research Fellow), Elliot Storm (Educational Developer), and other student partners - will involve researching and writing several critical annotated bibliographies on teaching and learning topics to share as a resource with campus educators and students. Topics may include:
-- Team-based and active learning: Challenges from 2SLGBTQ, racialized, disabled, feminist, international student perspectives
-- Critical approaches to experiential learning (e.g. anti-racist, accessibility-focused)
-- Mad and neurodivergent students' perspectives on teaching and supporting student success, wellbeing and mental health
-- Critical perspectives on 'reflective' learning activities/assignments and requiring and responding to student disclosure (of distress, sexual assault, oppression)
-- Decolonizing the curriculum
-- Accessibility considerations when using learning technologies
-- Managing contentious topics in the classroom
-- Supervising graduate students from equity-seeking groups

Undergraduate and graduate students who identify as members of one or more equity-seeking or under-represented groups, and/or those with a desire to take a critical approach to teaching and learning topics, are especially encouraged to apply. Work will involve conducting database and online

research for relevant articles/sources (blogs, podcasts, etc.), reading and summarizing the key arguments and findings of these sources, attending team meetings to share ideas and develop our analysis, and editing material into shareable formats. We encourage students to indicate which critical pedagogy topics they are most interested in exploring.

We anticipate that this project will involve approximately 25-50 hours per student *(Please note that this is only an estimate. A more precise approximation of hours will be provided to successful applicants before they begin.)*

Applicants should be undergraduate or graduate students of any level.

Prior experience in language learning

Based on empirical evidence collected from language students at McMaster, the final phase of this project involves examining student motivation and prior knowledge in learning experiences specifically in language learning. Specifically, the project examines the issues and strengths in students in the first year Japanese course. We focus on a complicated sentence structure. The project involves determining how to emphasize prior knowledge for groups of learners with overlapping individual differences. At this stage, partners will help to develop the pre- and post-test material as well as the intervention material developed to enhance the intake of our selected linguistic qualities and to run the study. The results of this project will be shared with the language instructors with suggestions for facilitating effective learning of Japanese. The project is set to begin in the Winter 2020 term working with the primary student investigator, Chelsea Whitwell, and the faculty supervisor, Elisabet Service. Students should have experience with Microsoft Excel and have basic classroom experience in linguistics or psychology. Previous experience in a university language class is an asset.

We anticipate that this project will involve approximately 51-75 hours per student *(Please note that this is only an estimate. A more precise approximation of hours will be provided to successful applicants before they begin.)*

Applicants should be in 3rd, 4th or 5th year undergraduate students.

Refining the SIS Teaching Assistant Development Program

In the fall of 2019, the School of Interdisciplinary Science (SIS), in partnership with the MacPherson Institute, offered for the first time the SIS Teaching Assistant Development Program. This program involves a series of workshops primarily oriented towards undergraduate teaching assistants (TAs). These workshops provide a space for engaging conversations about teaching and learning and focused mainly on [1] professional skills, [2] academic dishonesty, [3] marking and evaluation, and [4] laboratory teaching. This TA Development Program will be offered again in winter 2020. Thus, we are recruiting a dynamic student partner who will work closely with SIS faculty (Drs. Ayesha Khan and Verónica Rodriguez Moncalvo), SIS administration (Sarah Robinson), and education developers from the MacPherson Institute. The student partner will help further refine this new TA Development Program by attending the workshops, providing and collecting participants' feedback, as well as creating a report on how to improve the workshops based on the feedback collected. The student partner will also

participate in the process of updating the workshop presentations.

We anticipate that this project will involve approximately 51-75 hours per student *(Please note that this is only an estimate. A more precise approximation of hours will be provided to successful applicants before they begin.)*

Applicants should be graduate students of any level.