MacPherson Student Partners Posting – Fall/ Winter 2019-2020

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 September 2019 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?)

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/98291?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 6 August 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.

Please note, we are also piloting a new stream of the Student Partners Program, which focuses explicitly on developing student-faculty partnerships focused on enhancing equity and inclusion in the classroom. This stream follows a slightly different application process and timeline (applications are due July 29, 2019). Please see https://surveys.mcmaster.ca/limesurvey/index.php/48644? for more information and to apply for that stream.

**Project Descriptions: Fall/Winter 2019-2020**

- Best practices from competitive teams ................................................................. 2
- Contract Grading Pilot ......................................................................................... 3
- Course Design and Delivery Consultants ............................................................... 4
- Course Refinements & Faculty Development ......................................................... 5
- Creating safety for marginalized students in social work pedagogy ....................... 6
- Developing Online Program Guides for Life Sciences Students ............................ 6
- Development of Interactive e-modules for LIFESCI 2G03 ................................. 7
- Discover Your Elements - Development of Periodic Table Based Activities for Community Outreach ______ 7
- Do students want faculty diversity and representation? A Scoping Review of the social media landscape ___ 8
- IMPACT Initiative .................................................................................................. 8
- Integration of design courses in mechanical engineering for improved student experience __________ 9
- Integration of Reflection and Metacognition into the curriculum through the PIVOT__________ 10
- Investigating the perceptions of medical school students and Faculty on development and implementation of a physical activity curriculum at McMaster University’s Medical School ____________ 11
- MacChangers ........................................................................................................... 11
- Professor Hippo-on-Campus: Student Mental Health Education Program for Educators and Navigators___ 12
- Spring Intersession Co-creation project ................................................................. 13
- Student Curriculum Consultant (2019 IQAP) ....................................................... 14
- Test State Anxiety, Resilience, and Growth Mindset in students enrolled in Biomechanics ______ 14
- Additional Opportunity: Student Partners Initiatives Research, Support & Development ______ 15

**Best practices from competitive teams**

McMaster Engineering’s ongoing commitment to supporting student competitive teams and experiential education in makes us a national leader in this domain. These teams, such as EcoCar3, Concrete Toboggan, Solar Car and Chem-E-Car, are well-known among engineering employers for their effectiveness in developing professional skills and educating the whole engineer. However, we are still only serving a fraction of our students with competitive teams. Students in Mechanical and Electrical Engineering interested in automotive engineering are well-served by the current offerings; but students with different technical interests (e.g. our new iBioMed program) or other disciplinary backgrounds (e.g.
Materials Engineering) are less represented in the existing teams. We are also aware of “logistical” issues that may limit students’ willingness to engage in team activities, such as difficulties in collaborating due to a student’s commuting distance, nonuniform recruitment activities across disciplines. A more thorough understanding of how these interests and issues interact is critical to providing opportunities with a high level of student engagement.

I am seeking a partner who could:

• Obtain consent and collect data from students
• Conduct focus groups and semi-structured interviews
• Analyze the collected data

The study has been ongoing for one year, we have received ethics approval and collected pilot data. In 2019-2020 we plan to collect more data and analyze that data for publication. The student partner would be an active participant in developing the dissemination strategy for this work and could be a co-author if they wish. Ideally the student partner would have qualitative methods experience, but this is not a firm requirement.

We anticipate that this project will involve approximately 51-75 hours of work. *(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 or Masters level graduate students.

**Contract Grading Pilot**

The purpose of this project is to carry out a pilot study on “contract grading” (approval received from the Associate Deans’ Group at McMaster). Contract grading is a system whereby in exchange for acceptance of a set of criteria, students are guaranteed a specific grade in the course. For example, to get an “A” you need to do this, this and this, whereas for a B you need to do this this and this, and so on. In contrast to current system students get to make informed choices and set specific outcome goals at the start of the term resulting in a ‘contract’ that governs both student and instructor. The Student Partner will be involved in doing literature review and providing input to research design during F2019 followed by study administration, data collection and analysis in W2020. The ideal Student Partner for this project is a B student who is anxious about grades, willing and able to provide the student perspective throughout, and has ( or is willing and able to learn) all aspects of research. Superior time management skills, written and oral communication skills, and ability to work independently, are essential. Commerce students preferred but are ineligible if taking Commerce 4BL3 (Occupational Health and Safety) in Winter 2020 (target course). Students with anxiety related disabilities who can otherwise meet the requirements with reasonable accommodation are strongly encouraged to apply.

We anticipate that this project will involve approximately 51-75 hours of work. *(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.

Course Design and Delivery Consultants

Student Design & Delivery Consultant Program

Students will be paired with instructors to work collaboratively on (i) designing or redesigning aspects of a particular course, or (ii) providing feedback and suggestions on the delivery of a course (i.e., student partner attends some lectures and offers feedback).

Student partners will meet with the program coordinators from the MacPherson Institute (Kris Knorr and Kyle Ansilio) on Saturday, September 21 from 10am – 3pm, and then for approximately 1 hour every other week to discuss relevant pedagogical theory, to provide meaningful feedback, and to offer effective mentorship.

The student partners are expected to meet with their faculty partner for 30-60 minutes per week for the duration of the fall semester to provide feedback and assistance in course development and delivery. In addition, the student partners will have approximately 2 hours per week for their own independent working time. The time commitment for the student partner is approximately 4 hours per week. We anticipate that this project will involve approximately 50 hours of work, over the fall term. Applicants should be 3rd, 4th, or 5th year undergraduates or graduate students of any level.

Below are the faculty partners who are seeking student partners to assist them in course design or delivery. If you are applying for one of these partnerships, please clearly indicate which faculty member and course you are interested applying to in the FIRST SENTENCE OF YOUR STATEMENT OF INTEREST.

- Course: Instrumentation and Control (Proc Tech 2IC3)
  - Faculty Partner: Ahmed AbouArkub, Bachelor of Technology (Engineering)
  - Design or delivery partnership: Design
  - Undergrad or grad preferred: Undergrad
  - Additional information: This instructor uses Avenue to provide course resources and students evaluations, for both Lectures and Labs. The project is to explore, recommend and implement methods that could improve the online/evaluation methods.

- Course: Design and Creation of Engaged Learning for Community Youth (CMTYENGA 2MC3 and CMTYENGA2MD3)
  - Faculty Partner: Sandeep Raha, Pediatrics (Health Sciences)
  - Design or delivery partnership: Design
  - Undergrad or grad preferred: Undergrad
  - Additional information: The McMaster Children and Youth University program has recently converted its community-based education delivery program and student
training "bootcamp" into the two 3-unit courses listed above. Since the program has been developed in conversation with faculty and community partners, a student partner would help refine the content and delivery for more effective and long-term student engagement.

- **Course: Poverty, Privilege, and Protest in Canadian History (HIST 3N03)**
  - Faculty Partner: Mary Chaktsiris, History (Humanities)
  - Design or delivery partnership: Design
  - Undergrad or grad preferred: Undergrad
  - Additional information: The instructor of this course is keen to receive undergraduate student feedback and assistance in designing content and assessment for the redesign of HIST 3N03.

- **Course: Introductory Macroeconomics (ECON 1BB3)**
  - Faculty Partner: Bridget O'Shaughnessy, Economics (Social Sciences)
  - Design or delivery partnership: Delivery (must be available Wed 10:30-11:20am or Wed 3:30-4:20pm)
  - Undergrad or grad preferred: Undergrad
  - Additional information: This large enrollment, first year course has recently been redesigned. The instructor is interested in having an undergraduate student help provide feedback on the effectiveness of the redesign from the student perspective.

**Course Refinements & Faculty Development**

A Course Refinement is a process by which a faculty member or instructor can collect honest, useful, personalized, formative, and timely student feedback about a course they teach. On an instructor’s behalf, the MacPherson Institute (MI) collects student feedback, anonymizes it, and returns it to the instructor so that they can implement changes that address feedback at the midway point in the semester. It is a process that has received very positive feedback from instructors and students alike, and is in high demand each term.

As student partner, you will conduct, analyze, interpret, and communicate Course Refinement feedback with instructors of a variety of undergraduate and/or graduate courses at McMaster. Working with an Educational Developer from MI, you will collect and perform qualitative analysis of student feedback, and support faculty in determining ways to enhance their courses and teaching.

This student partners project is suited for graduate students interested in educational development processes, working with instructors on facilitating course improvements, and conducting qualitative (and some quantitative) survey data analysis.

We anticipate that this project will involve approximately 25-50 hours of work. (*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.

Creating safety for marginalized students in social work pedagogy
The goal of this project is to create safety for marginalized students in the school of social work (with the potential to expand to discussion-based courses in other faculties) through the development of a pedagogical presentation/webinar. This presentation, which could be delivered in lecture(s) or tutorial(s) that are discussion-based, would attempt to address how students can engage in class dialogue around a myriad of social justice-related issues (e.g. racism, sexism, transphobia, sexual violence, etc.) in a respectful and reflective manner. Topics would include: the adverse impacts of tokenism and under/misrepresentation of marginalized identities, the difference between intent and impact of language and actions (e.g. how well intentioned statements can still be negatively experienced by marginalized students), and how students can check in with themselves, their instructor(s), and/or each other to foster a safer space where class discussion is possible. The development of this project would involve consultation with marginalized undergraduate and graduate students in the school of social work via surveys, interviews, and/or focus groups to ensure the presentation reflects their lived experiences and hopes to pedagogical shifts in the classroom around creating safety. Collaboration with marginalized faculty may also be involved. This project is still in the planning stages; however, it has been approved/endorsed by the acting director of the school of social work, Dr. Saara Greene. Faculty partner is Dr. Ameil Joseph (Associate Professor and PACBIC member). This project would welcome student partners from marginalized communities and who have some experience in social services, research, social work, and social justice-related pursuits.

We anticipate that this project will involve approximately 25-50 hours of work. (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 graduate students of any level.

Developing Online Program Guides for Life Sciences Students
The Life Sciences Programs are some of the most flexible programs in the Faculty of Science. Accordingly, our students have the capacity to choose their own areas of specialization through their required and elective course choices, while still retaining the option to complete a Minor or Certificate. Though this level of flexibility is enticing, it can also result in an unfocused degree program. Indeed, in our most recent IQAP Review, we heard that Life Sciences students requested more guidance on course selection. As a first step towards this goal, Dr. Piskuric worked with two Student Partners in Winter 2019 to design topical ‘themes’ that would be of interest to Life Sciences students. Each theme consisted of at least 4 related courses offered by multiple departments/units on campus. Based on our survey and focus group results, we identified several themes that are worth advertising to Life Sciences students.
Moreover, we found that students require more clarification about the differences between Minors, Certificates, and Program Specializations. We are seeking one Student Partner to help launch an Online Program Guide for Life Sciences students. The Guide would help students select between program options (e.g., Minor or Certificate), and would provide some guidance on course selection particularly in levels III and IV. The Student Partner would work with the Coordinator of the Life Sciences Program, Dr. Nikol Piskuric, as well as the Academic Program Advisor, Ms. Rebecca Misiak. Ideally, the student would have an interest or experience in web design.

We anticipate that this project will involve approximately 25-50 hours of work. *(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.

**Development of Interactive e-modules for LIFESCI 2G03**

This project aims at developing accessible and interactive e-learning material for an undergraduate life science course (Life Sci 2G03) with a student perspective in order to enhance the face-to-face experience of the course. This project, although still in its planning stages, is set to start in September of 2019. The student partners will work closely with Dr. Veronica Rodriguez Moncalvo and engage in the following activities: - Selection of appropriate background information/sources to create a total of 6 modules - Development of powerpoint slides for each of the modules - Using and troubleshooting appropriate software (e.g. Articulate Storyline) to develop accessible and interactive e-learning material - Generating effective student survey that will serve to assess effectiveness of the e-learning modules - Weekly meetings with Dr. Rodriguez Moncalvo to discuss resources, module progress, and accuracy of module content Given the nature of the project, student partners will ideally have taken LIFESCI 2G03 and/or similar genetic courses.

We anticipate that this project will involve approximately 51-75 hours of work. *(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.

**Discover Your Elements - Development of Periodic Table Based Activities for Community Outreach**

With the unveiling of the fantastic new periodic table display in the Arthur Bourns Building (ABB) this past spring, and in alignment with UNESCO's International Year of the Periodic Table, it is our hope to showcase the display to the surrounding community and highlight how chemistry applies to everyday life. To this end, we endeavor to develop outreach activities appropriate for students at both the
elementary and high school levels and to utilize the Periodic Table display as a central theme. We hope that these activities will inspire the next generation of scientists and provide students with an opportunity to experience chemistry outside of their typical elementary/high school setting. Once developed, we expect these outreach opportunities to be available for any incoming school group over the coming years. As the project has not yet begun, the student partners would be engaged in every aspect, from proposing ideas, to planning the activities, to implementing them. We welcome applicants from any discipline of science, at any stage of their undergraduate or graduate degrees. Prior experience with elementary or high school students is an asset. Possible ideas include Periodic Table themed treasure hunts, lab-based experiments, and laboratory demonstrations.

We anticipate that this project will involve approximately 45-55 hours of work. *(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.

**Do students want faculty diversity and representation? A Scoping Review of the social media landscape**

What are university student expectations of faculty diversity and representation? Do students believe faculty diversity and representation is important for learning? If yes, how are these views being expressed by the student body? While a Scoping Review has historically been used to examine the academic, peer-reviewed literature, these sources and academic databases might not adequately capture student viewpoints. I'd like to work with a Student Partner to conduct a scan of the social media environment and apply the principles of a Scoping Review to this work. This will involve applying systematic scoping review approaches to social media sites such as Twitter, Blogs, YouTube, etc. Student partnership in this project is important so that insights, directions, and interpretation of the social media review are guided by the student perspective. This work will be tied to a project currently underway which is examining the academic literature around faculty and leadership diversity in higher education.

We anticipate that this project will involve approximately 51-75 hours of work. *(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 undergraduates or graduate students of any level.

**IMPACT Initiative**

The IMPACT (Interdisciplinary, Mentorship, Practice, Applied, Community, Transformative) Initiative is a unique collaboration, which engages Engineering undergraduate / graduate students, Science undergraduate / graduate students, Occupational Therapy graduate students, McMaster University
alumni, medical students, residents, professionals, community health care partners, and volunteer clients. This co-designed educational initiative is led by Drs. Fleisig, Kajiura, Vrkljan, Hassan, and Ebrahimi. The IMPACT Initiative involves a learning process whereby students from different academic disciplines collaborate to understand, appreciate, and address challenges experienced by people living with challenges. IMPACT co-leaders teach students how to design assistive devices to help real community clients. The goal of the IMPACT student partner initiative is to identify the benefits of project-based learning for each of the participant cohorts, based upon longitudinal studies of several years of data. The student partners will assist us by: i) compiling reviews of the published literature related to best practices for assessing community engaged, experiential learning, design thinking, interdisciplinary and mega-disciplinary learning, ii) helping with the preparation of the research ethics report, designing and implementing assessments, and recruiting of students to complete online LIME surveys and participate in focus groups for the collection of quantitative and qualitative data, and iii) summarizing findings and creating an exit report to facilitate the collection of further focus group data. Student partners will have opportunities to present at scholarly conferences related to pedagogy. Student partners may also serve as coauthors for related publications and as co-presenters, if they desire to participate in these related initiatives.

We anticipate that this project will involve approximately 76-100 hours of work. (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 or Masters level graduate students.

Integration of design courses in mechanical engineering for improved student experience
This project, developed by Prof. Elizabeth Hassan, proposes the integration of two sequential second year mechanical engineering design courses. This goal of this project is to increase the technical complexity of the student robot prototypes, thereby making the course work more similar to engineering workplace tasks. By aligning the courses, Hassan hopes to deliver the material more efficiently so that students can begin designing their prototypes earlier in the term, allowing for an additional iteration cycle. Hassan is also working to enhance the physical prototyping resources available to students in mechanical engineering, both for students in her courses and in general. The primary research question addressed by this work is: “Does course integration support more technically complex student work in mechanical engineering design courses?”

The secondary research questions are:
  • Does integration of sequential courses offer any other benefits from a student perspective?
  • What benefits do improved prototyping resources offer students? The student partners involved in this project would be responsible for:
    • Recruiting participants
    • Collecting the student perspectives to inform the selection of physical prototyping resources
    • Designing and documenting parts for one of the courses
• Collecting and processing student outcomes data Ideally student partners would have either:
  • qualitative (focus group) data collection experience
  • experience developing parts for 3D printing (with Inventor software) but these are not firm requirements.

We anticipate that this project will involve approximately 51-75 hours of work. (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.

Integration of Reflection and Metacognition into the curriculum through the PIVOT
The goal of this project is to work towards the meaningful integration of Reflection and Metacognition into the engineering curriculum, so that students become more proficient self-learners – increasing the value of their education across their program. Reflection is gaining traction in education due to the potential of increasing student competencies in metacognition – the awareness, understanding, and adjustment of one’s own thinking and learning. The benefits to becoming a better learner are obvious, however these skills are challenging, and most often not included in traditional courses. By integrating these skills in the curriculum, students will continue as proficient learners throughout their careers – a skill critically important given the rate of technological change facing society. This project is at the very early stages but will deal with integrating reflection into various aspects of the PIVOT: Engineering 3CX3 (complementary credit for experiential learning during extracurriculars) and/or 1P13 (1st year Project Based Learning overhaul). The type of work for this project will be most significantly influenced by the interests and skills of successful candidates, however, will likely include: researching existing best practices, developing appropriate teaching techniques and modules, conducting student focus groups, modifying a research ethics protocol, quantitative and/or qualitative analysis of collected data, and dissemination of the work.

Since we are in developmental stages, we realize that many different skillsets can likely be utilized to develop this project, so we encourage anyone with a strong interest in reflection, metacognition, and learning to apply. However, we imagine certain skills and experiences will be particularly useful, including:
  • Experience with Reflection in various contexts throughout undergrad
  • Genuine interest in Learning and Reflection
  • Experience with developing, conducting, and analyzing data from focus groups
  • Social sciences background with experience developing and analyzing qualitative survey and focus group data
  • Educational background (i.e. completed an ISW), and interest in curriculum development
  • Developing /modifying a research ethics protocols for collecting data from students
We anticipate that this project will involve approximately 25-50 hours of work. *(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.

**Investigating the perceptions of medical school students and Faculty on development and implementation of a physical activity curriculum at McMaster University's Medical School**

Physical activity is an important aspect of maintaining individual’s health and quality of life. Research has identified the multitude of benefits associated with increasing physical activity in patients with varying chronic conditions. Additionally, evidence has shown that physical activity prescription and counseling by physicians helps to increase their patient’s activity levels. However, current exercise prescription rates by doctors remains low. One method to increase physician physical activity counseling is to educate medical students. However, the majority of Canadian Medical School programs do not include a comprehensive physical activity curriculum to teach medical school students about exercise counselling with their patients. The focus of this research study will be to (1) explore the current physical activity curriculum that exists at McMaster’s Medical School, (2) investigate what a future curriculum could include, and (3) understand the perceptions of students and Faculty have with regards to developing and implementing said curriculum at McMaster. These objectives will be achieved through analysis of focus groups with current McMaster medical school students, and interviews with current Faculty. The ultimate goal of this project will be to present core findings and areas for future direction to McMaster’s Medical School. Student Partner (SP) Roles: We are seeking two (2) student partners to work as a collaborative team to run focus groups and interviews with medical school students and Faculty. The team will then analyze findings to prepare in a recommendations report to the school. The student partners will play a valuable role in shaping this project, and so we welcome partners from diverse educational and experiential backgrounds.

We anticipate that this project will involve approximately 76-100 hours of work. *(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 graduate students of any level.

**MacChangers**

MacChangers is a co-curricular program that provides resources, coaching, and support to multidisciplinary teams of students who work with local community members on an 8-month project to propose innovative solutions to issues that impact the greater Hamilton community. We are seeking Student Partners to support the program staff in leading the program, as well as support the students by helping build an effective, experiential learning environment. In September 2015, Canada along with 192 other UN member states adopted the 2030 Agenda for Sustainable Development. The 2030 Agenda is a
15-year global framework centered on an ambitious set of 17 Sustainable Development Goals (SDGs), 169 targets and over 230 indicators. As a MacChanger, students will focus on understanding and developing a solution for an SDG under the themes of infrastructure and public health in the greater Hamilton community. MacChangers is the heart of the new McMaster Grand Challenges Scholarship Program (MGCSP), launching in the 2019-20 academic year, which aims to enhance our graduates’ ability to enter the professional world and drive real, sustainable change in response to the challenges that we are facing in the 21st century. MacChangers is currently being redesigned and set to run from September 2019 – April 2019. We are seeking Science and Engineering students in the 3rd or 4th year of their undergraduate program, with a preference for students who have completed MacChangers and/or have experience as a Student Partner on MacChangers. In terms of Professional Development Outcomes, at the end of this project Student Partners should be able to:
- Practice McMaster University’s Principles of Community Engagement,
- Support the development and facilitation of workshops around human-centered design,
- Synthesize constructive and actionable feedback on participant assessments, and
- Communicate effectively as part of a professional, teaching team.

Project staff: Kyle Ansilio (Faculty of Engineering), Beth Levinson (MacPherson), Cameron Churchill (Faculty of Engineering)

We anticipate that this project will involve approximately 101-125 hours of work. *(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.

**Professor Hippo-on-Campus: Student Mental Health Education Program for Educators and Navigators**

The Professor Hippo-on-Campus: Student Mental Health Education Program consists of 8 online e-modules hosted on Avenue to Learn, coupled with in person group workshops. It was originally developed within an eCampus Ontario Research Grant which was secured in 2018 to fill outstanding gaps identified during McMaster’s Mental Health and Well-Being Strategy (Phase 1). The overarching aim of Professor Hippo-on-Campus initiative has been to engage and educate faculty and others in education and navigation roles to: better understand and support students at McMaster who are stressed, distressed and/or suffering from mental health or substance use problems, and to support educators in this process within the boundaries of their roles. In 2019, an Internally Sponsored Research (ISR) fund through the Office of the Vice-Provost, Faculty, was approved to support ongoing development and refinement of the Professor Hippo online modules and workshops based on the results of Phase 1 and faculty feedback, with a broad dissemination across the McMaster community in the 2019-2020 academic year, in collaboration with the MacPherson Institute. This project intends to facilitate the student learning experience by creating awareness and building mental health literacy and
skills to: reduce unnecessary stress and distress, improve mental health and well-being, increase use of universally accessible teaching and learning approaches, encourage appropriate help-seeking and use of accommodations, and improve system navigation (academic and student services), while maintaining academic integrity. There is a corresponding commitment to evaluate whether this educational program achieves its' goals by measuring engagement, relevant outcomes, and participant satisfaction. Key partners include: Jenny Blaney (Educational Developer, MacPherson Institute) and Dr. Ilana Bayer (Learning Technologies Laboratory, Health Sciences).

We anticipate that this project will involve approximately 101-125 hours of work. (*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 level graduate students.

**Spring Intersession Co-creation project**

Primary goal: To create a 4-week long, immersive, spring semester that provides novel interdisciplinary and experiential learning opportunities that are not available to all students in the typical fall/winter semesters. Two key components are: (1) A spring level 1 interdisciplinary, experiential, and community-engaged course focusing on the Hamilton community open to students in all faculties (2) Spring intersession experiential and interdisciplinary micro-courses open to all students. Spring Intersession will be open in Spring 2020. Outcomes of student partners project: McMaster Spring Intersession is an opportunity to focus on our students who have just completed level I. It provides a chance for students to pause after their first year and to recalibrate, and possibly reinvigorate, their learning experience. Only during intersession will students be able to enroll in INSPIRE1A03. This is an interdisciplinary and experiential intersession course that allows students to explore through active learning, deepen their intellectual horizons, and build community across Faculties. Low risk, but high impact experiences will give students opportunities to apply and reinforce the knowledge and skills gained in the fall/winter terms. This course would connect students with the Hamilton community and provide the capacity for students to build inclusive communities within McMaster and beyond. We are looking for students from all Faculties to collaborate on the design of the Spring Intersession course, INSPIRE1A03, and to further imagine what the 4-week long Spring Intersession would look like. We want students to bring to the project their individual experiences of what worked for them at McMaster and how they have engaged with both the McMaster and Hamilton communities.

We anticipate that this project will involve approximately 25-50 hours of work. (*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.
**Student Curriculum Consultant (2019 IQAP)**

Several undergraduate and graduate programs are scheduled to undergo a program review over the 2019-2020 IQAP cyclical year and would like to form a partnership this term with one student in co-creating the program’s self-study. As a student curriculum consultant, the student will work with faculty to ensure student perspectives are included in the self-study document. The goal of this collective self-revelation is to create a self-study document that reflects student experience. It will also give the student partner a valuable professional experience, relevant to all students interested in teaching and learning, Higher Education and administrative positions in academia or government. Greg Van Gastel (MacPherson) is looking for students who has familiarity with at least one program scheduled to be reviewed (IQAP Cyclical Review Schedule: https://mi.mcmaster.ca/app/uploads/2019/06/Cyclical-Review-ScheduleDec-5-2018-revised.pdf ), either as a former student of the program or as a Teaching Assistant. Required skills include: leadership, teamwork, good social skills, interest in the community involvement, good time management skills, pedagogical interests, analysis skills.

Required application information: Student applicants must specify with what program they would like to partner. Please refer to schedule link above to see what programs are being reviewed.

We anticipate that this project will involve approximately 25-50 hours of work. *(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 level students.

**Test State Anxiety, Resilience, and Growth Mindset in students enrolled in Biomechanics**

Teaching Professor in the Department of Kinesiology Krista Madsen is interested in studying test state anxiety, resilience and growth mindset (via implicit theories of intelligence) in a second-year core course (Biomechanics). Anecdotally, many of the students are apprehensive or outright fearful of the physics and math-based learning objectives for this course. Madsen has a number of research questions to consider: To what extent do these students experience test state anxiety, specific to this course? How resilient are these students, in the academic context? To what extent do the students believe they can develop new competencies (“become math people”)? Do resilience, test anxiety and mindset change across the term? How do these factors correlate with first-year GPA, experience in physics and math, and performance on in-course tests? The goal of this project is to develop a research protocol that addresses at least one of these research questions, and to execute a pilot study this fall. Some of the tools we may use (or adapt) include the Academic Resilience Scale (ARS 30), the Cognitive Test Anxiety Scale (CTAS), and the Dweck Growth Mindset Scale. Madsen is looking for two graduate students; one with experience teaching Biomechanics or introductory Physics or Math, and one with research design experience in Educational Psychology. The key work involves literature review, research protocol design, statistical analysis, bi-weekly team meetings for goal-setting, and ideally data collection. The candidates should be open-minded, internally motivated, flexible, organized, independent, and curious.
We anticipate that this project will involve approximately 51-75 hours of work. *(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.*

**Additional Opportunity: Student Partners Initiatives Research, Support & Development**

In Fall/Winter 2019-2020, we are also looking for students to take up flexible positions that will support and contribute to the MacPherson Institute’s work on student-faculty partnerships in a range of ways. First and foremost, the student(s) taking up these positions will work with members of the Research team at MacPherson to develop materials and projects that will enhance the student partners program, and other partnership-relevant work carried out at McMaster. This might entail the development of additional resources and activities (e.g., further training opportunities for students, more chances for students to connect across projects, greater publicity of students’ work with MacPherson, etc.), or contributing to the design and development of new partnership initiatives that complement the current student partners program. It might also involve helping to expand and develop our growing program of research on student-staff partnerships, including further research on the efficacy of the student partners program itself.

We anticipate that these positions will involve approximately 60-75 hours of work. *(Please note that this is only an estimate. A more precise approximation of hours will be provided to successful applicants before they begin.)*

Undergraduate and graduate students of all levels are welcome to apply.

You will not need to write an interest statement for this final opportunity, but will be asked to indicate whether you’d like to be considered for this position should we not be able to offer you a spot on one of the other projects for which you’ve applied.