MECH ENG 2C04 – Mechanical Engineering Design

Project - Fall 2023

Instructor: Dr. Elizabeth Hassan

Email: hassae3@mcmaster.ca

The information in this course outline is accurate at the time of writing but may be modified at the instructor's discretion. Any modifications will be made with an effort to minimize disruptions to student learning.

This course is being delivered fully in person

Lecture: Tue and Thu 1130-1220 room per Mosaic

Labs:

- Per your group's schedule, alternating between in lab and in shop
- You **must** attend **your** group's assigned time and location to manage room capacity and supervision
- A final schedule and TA contact information will be posted on Avenue

Office hours: 1230-1400 Tuesday Dr. Hassan's office or call Dr. Hassan on Microsoft Teams

"Office hours" are when I am planning to be there and available to work with students. You can come for feedback on an assignment before you submit, ask questions about something I covered in lecture, get help with your project, get advice on problems with your group, or anything else that you would like my help with.

Learning Outcomes:

By the end of the MECHENG 2C04, the student should be able to:

- 1. Work as an effective team member on a mechanical design project.
- 2. Generate multiple design alternatives.
- 3. Select an initial design solution.
- 4. Analyze and evaluate the design solution using a CAD generated model.
- 5. Prepare an invoice based on the contribution of the team members and material costs.
- 6. Construct a written design project report with engineering and manufacturing drawings.
- 7. Use CAD to generate data for manufacturing components using a 3D printer and laser cutter.
- 8. Present their design solution to an audience.
- 9. Proficiently use a solid modeling CAD system to create part and assembly models and to generate drawings and bills of material;
- 10. Properly dimension engineering drawings according to national standards;
- 11. Select appropriate views and use drawing conventions such as sectioning and auxiliary views to communicate part design information;

This course is intended to encourage you to develop **independent** engineering judgement. You may notice that this project is more open-ended than 1st year projects, and there is less "scaffolding". This is intentional and designed to guide your development.

Graduate Attributes:

MECHENG 2C04 provides the student the opportunity to develop competence in the following CEAB graduate attributes:

Graduate Attributes

4.01 - Recognizes and follows an engineering design process. (This means an iterative activity that might include recognizing the goal, specifying the constraints and desired outcomes, proposing solutions, evaluating alternatives, deciding on a solution, and implementing.)

4.02 - Recognizes and follows engineering design principles including appropriate consideration of environmental, social and economic aspects as well as health and safety issues.

4.03 - Proposes solutions to open-ended problems.

4.04 - Employs appropriate techniques for generation of creative ideas such as brainstorming and structured inventive thinking.

4.06 - Determines and employs applicable standards and codes of practice.

5.02 - Demonstrates an ability to use modern/state of the art tools.

Contact guidelines:

- Dr. Hassan will be present at lectures.
- A TA and/or technician will be present during your labs.
- During the workday I'm very fast with email, but slower in the evenings and on weekends. You can expect that email will generally be replied to within 24h, but please include the course code (2C04) in the subject line for fastest response, and follow these guidelines:

Торіс	Contact
General Inquiries	Email or Teams message to Dr.
	Hassan
In class questions	Talk to me after class
Mark adjustments/ grading questions	Email to Dr. Hassan only, please do not use Microsoft Teams
	Regrading requests take a little bit longer to respond to than other emails because I need to be thoughtful about them.
Help with Inventor	During lab time

- If you need to speak with Dr. Hassan directly, you can talk to me at class, go to office hours, call during office hours on Microsoft Teams or make an appointment via email. Appointments outside office hours are very limited due to my heavy teaching schedule this term, please use office hours as much as you can.
- I cannot "check" individual homework during office hours or by email, because I can't do it for the whole class, it would not be fair. But I'm always happy to answer specific technical questions via email/Teams or during office hours.
- During a video call/meeting/class Dr. Hassan's camera will always be on, but your camera never needs to be, there's no need to show your face unless you want to.
- A Microsoft team will be set-up for the class, primarily for backup in case of instructor illness or presentation file sharing. No course materials, announcements or recordings will be posted on Teams, that is what Avenue will be used for.

Equipment/Text/Software:

- There is no mandatory textbook for this class, my notes should be sufficient, posted on Avenue.
- However, if you would like more depth or are just someone who learns better from a textbook, the following book is a great and inexpensive resource: "The Engineering Design Process: An Introduction for Mechanical Engineers" by Peter Ostafichuk, available at the bookstore or on Amazon
- For labs, you may use your own device with **Autodesk Inventor** (download for free at autodesk.ca) or the computer lab. If you cannot use the software due to your system limitations, you can access the Mechanical Engineering computer lab remotely or in person; instructions will be posted on Avenue.
 - I'm not really concerned with which version you use, but using the same version as your colleagues will make working with them easier, and any parts I provide will be easier to work with in the current version.
 - We can't help you with Autodesk licensing issues. If you have those issues, the advice is to sign in and out of the Autodesk website or to uninstall previous versions and reinstall the new version.
- There may be some lectures or labs where you will be required to hand sketch. As long as the drawing is legible, either paper or digital is acceptable. Please have the equipment required to hand sketch ready for each lecture session.
- Course materials will be posted on Avenue and I will communicate with you only via your McMaster email account. Please check your McMaster email for updates.
- For details about equipment for the group project, please see the "Group Project" section of this outline.

Lectures

- Lecture will be in person in the room listed on Mosaic and in the course outline.
- In the case of instructor illness, a synchronous lecture will occur via Microsoft Teams, with an announcement on Avenue.
- There will be participation elements worth a small grade amount (in class assignments) during the lecture. These may or may not be possible to do without lecture attendance.
- No lecture recordings will be made or posted.

LAB and SHOP:

- You will rotate through several spaces to allow for more hands on work, within the same lab period. Every week you will meet with your TA for a mini design review. You will also have time for either a lab or shop activity, plus optional CAD help if you need it.
- To manage the room capacity you need to go to your lab with your group.
- Once groups are finalized a lab rotation schedule will be posted on Avenue
- You may miss one LAB or SHOP day per term with no penalty.

Assignments

- There are no exams in this class, therefore it is imperative that you treat the projects and assignments with the same care and attention as you would an exam since they are worth similar amounts to exams.
- All submissions must be digital, pdf files, via Avenue (other than part files). Make sure that photos, scans or pdfs of your drawings are legible so the TAs can grade them. Guidelines for digitizing assignments will be posted on Avenue. Drawings submitted on lined paper, or drawings that are illegible for another reason will be given a grade of 0.
- DO NOT EMAIL work to me or the TAs, even if you miss the deadline. I never accept work via email or Teams, **only** via Avenue.
 - Why? Grading work outside of Avenue is undesirable for a number of reasons (record keeping, accreditation, fairness, efficiency). It makes it harder on everyone when submission guidelines are not followed
- <u>In-class assignments:</u> At most classes (lecture) there will be an in-class assignment or quiz. It is possible some of these will require in class work. Assignments can be submitted for up to 24 hours after the end of class. These will be available on Avenue either as a quiz or assignment, the name will be the date of the class.
 - Grace period: 24 hours after end of class
- <u>All other work (EXCEPT INDIVIDUAL PARTS)</u> Hand in on Avenue, due at 1159 pm Friday
 - o Grace period ends: 1159pm EST the following Friday (1 week)
- **<u>Grace period</u>**: no penalty, no need to email or MSAF; the Avenue dropbox will simply remain open.

- In general, I recommend that you try to complete the work as it is assigned. This is intended to help you keep a schedule and past students have indicated that handing in as scheduled is important to their success in the course.
- I implemented this policy because I want to grade your best work and I care about your stress level.
- Use the grace period for any reason, no questions asked. If you think it's a good reason to hand in late, it probably is.
- This is intended for the big and little things that happen in all our lives from time to time: you have a minor illness, you don't want to miss your mom's birthday, you have to work at your job, your varsity team has a game, you have a midterm in another class, your laptop breaks, your internet is slow etc.
- Things that affect our ability to hand in work happen to all of us at some point, so I am extending you a bit of "grace" with this policy. In return, I ask that you do the same to your teammates and treat each other kindly as you work together.
- Please note: At the end of the grace period, the dropbox will close, any assignment not submitted will be considered late and will receive a zero. If your internet breaks as you are handing in at the end of the grace period, that is unfortunate, but the end of the grace period is the end. Please hand in sooner to allow for that kind of problem, that's what the grace period is for.
- Any work that has been handed in is eligible to be graded immediately. If multiple submissions are present, the most recent will be graded. However, once work has been graded, no new submissions will be considered, even within the grace period.
- The exception to the grace period are individual project part submissions, because we are producing them in bulk over the reading week. There is **NO GRACE PERIOD ON**

PARTS.

- If you miss the deadline or choose not to submit a part, you are responsible for fabricating the parts yourself with non-department resources (e.g. Makerspace, Mills Library, home printer). You may test your self-produced part as long as it is compliant with the rules.
- <u>Grading:</u> Rubric feedback will be posted on Avenue, if after reviewing the guide you think that your assignment has a grading error, send Dr. Hassan an email **detailing the**

error specifically and I will re-grade your work. Do not email the grading TA, all grade changes are done by Dr. Hassan.

- Keep in mind that I will re-grade the entire assignment, not just the criteria that you have identified. If that re-grading yields a lower grade, I will not adjust your grade, but if it yields a higher one I will.
- Questioning your grade will never result in a penalty for you.
- Regrading requests take a little bit longer to respond to than other emails because I
 need to be thoughtful about them, and they aren't as urgent as questions about work
 that has yet to be handed in. I appreciate your patience.
- Your lowest 20% of in-class quizzes or activities will be dropped. For example, if 15 quizzes are handed in during the term, I will drop your worst 3.
 - The purpose of this scale to reward consistent participation. Even if you are not always correct or present, you can still achieve a high participation grade (since "perfect" is actually 80%)
- A MSAF results in an additional one week to complete your work, not cancellation of that work. If you miss the grace period and still wish to hand in work you must use a MSAF.
- All course work MUST be handed in by the end of day (1159pm EST) December 12, 2022, <u>no extensions</u>.

Use of AI:

Students are not permitted to use generative AI in this course. In alignment with McMaster academic integrity policy, it "shall be an offence knowingly to … submit academic work for assessment that was purchased or acquired from another source". This includes work created by generative AI tools. Also state in the policy is the following, "Contract Cheating is the act of "outsourcing of student work to third parties" (Lancaster & Clarke, 2016, p. 639) with or without payment." Using Generative AI tools is a form of contract cheating. Charges of academic dishonesty will be brought forward to the Office of Academic Integrity.

This includes the use of AI to generate ideas, sketches or renders for any purpose in this course.

Teamwork:

- Teamwork is a critical part of this class and a critical part of engineering practice.
- You may form your own groups as long as you are all in the same section on Mosaic. I cannot help you switch sections, Mosaic is beyond my control.
- If I need to add or move members to teams to meet everyone's needs, I reserve the right to do so.
- If you need help finding group members, talk to your design review TA.
- Insufficient contributions to your team project are a form of academic dishonesty and will be dealt with accordingly.
- Harassing or abusive conduct is prohibited by your student code of conduct. There is zero tolerance for harassment or abusive conduct in this class.

Individual Project:

- Your parts are being produced in bulk over the reading week, therefore **there is no** grace period on part submissions
- THE RULES ARE DIFFERENT FROM LAST YEAR'S CLASS. READ ALL DOCUMENTATION CAREFULLY.
- A full rules document will be posted on Avenue.
- Your task is to build a part for a standardized robot to complete the specified task using the resources provided.

Group project:

- THE RULES ARE DIFFERENT FROM LAST YEAR'S CLASS. READ ALL DOCUMENTATION CAREFULLY.
- A full rules document will be posted on Avenue.
- Rules are subject to change by Dr. Hassan due to the uncertainty of this kind of work, but all changes will be in the students' favour (meaning they will make the challenge easier, not harder). Any changes will be posted on Avenue.
- Your task is to build a robot that moves forwards to a marker/barrier and then launches a ping pong ball at a goal, returns to the start line and repeats the process.

- All legs must meet the specification in the rules (legs must cover an arc of no more than 90 degrees)
- No powered wheels
- You are welcome to use whatever external resources for part fabrication you wish, in addition to the fabrication budget provided to you in the rules.
- You must use the "kit" motors
 - You need to use the specified motors to keep the competition fair.
 - However you may purchase these motors from whatever source you wish (e.g. from past students). The bookstore has them packaged in a convenient kit, their kit price is probably the same or a little lower than other sources because they bought in bulk. Please only buy one kit per group to leave enough for everyone.
 - If you purchase elsewhere be careful, because there are motors that look the same but are different (eg they are servo only, they have lower torque, poor quality gears). Check that your motors are the same model number, motor data sheet posted on Avenue for reference.
 - Use of non-standard motors for propulsion disqualifies you from the competition and you will get 0 on your prototype. You may use non-standard motors for launching the ball.
 - If you want to share parts with another team feel free, as long as it works on competition day it's ok.
 - You can use any other materials you wish from other sources, but you cannot use more than 8 AA batteries.
 - Your kits come with limit switches, these are the only sensors you **need** for the project. You can use anything else you wish, but:
 - you cannot communicate with your robot (e.g. no bluetooth)
 - be careful using a different board or components (it would be easy to fry components with motor current draw if you aren't careful)
 - One of your lab activities is plugging in and using your motors, make sure you have your kit in time for that lab activity.

Research:

You may be invited to participate in a research study being conducted by Dr. Hassan. You are under absolutely no obligation to participate and your participation will have no effect on your grade in this or any other course. Dr. Hassan will never know if you participate in any research study.

Course Grade Breakdown:

Group – 49%	Individual – 51%	
 Group Project (GR1, GR2) - 30% Group Mini Design Reviews -2% Design Review -5% LAB1, LAB2, LAB3 - 2% SHOP1, SHOP2, SHOP 3 - 2% Prototype testing - 10%* see below 	 Individual Assignments (A1, A2, A3) – 22% Individual prototype testing – 5% CAD1-5 – 20% Participation via Avenue Quiz – 2% 	

* If your prototype grade is higher than your report grade, I will use your prototype grade, but if your prototype score is lower than your report grade, I will use your report grade in place of your prototype grade. Therefore, prototype testing can never hurt your grade. I'm doing this to allow groups to learn from testing failures and write an excellent report to make up for it

Weekly Plan

Assignment numbering: A = Individual, GR = Group CAD assignments are individual

Deadlines are the earliest an assignment can be due, I may adjust later if necessary. Lecture topic schedule is approximate and may be adjusted based on class progress.

Wee	ek of	Lecture	Lab	Hand In, Due Friday midnight		
0	4-Sep	Intro, Rules, Concepts	No lab, form teams			
1	11-Sep	Concepts, Part design	Mini DR + optional CAD help	A1		
2		Design evaluation and	SHOP1/LAB1 + Mini DR per			
		validation with hand	your group's schedule			
	18-Sep	calcs				
3		Dimensioning	SHOP1/LAB1 + Mini DR per	A2		
	25-Sep		your group's schedule			
4		Design Review	Design Review	CAD1, Individual		
	2-Oct			Prototype		
Reading Week – Enjoy yourselves						
5	16-Oct	Mechanisms + CAD	Mini DR + optional CAD help	CAD2, GR1		
6		Mechanisms	SHOP2/LAB2 + Mini DR per	CAD3		
	23-Oct		your group's schedule			
7		Mechanisms + CAD	SHOP2/LAB2 + Mini DR per			
	30-Oct		your group's schedule			
8		Arduino	Plug in your kit + optional CAD	CAD4		
	6-Nov		help			
9		Tolerances and GD&T	SHOP3/LAB3 + Mini DR per	A3		
	13-Nov		your group's schedule			
10		Tolerances and GD&T	SHOP3/LAB3 + Mini DR per			
	20-Nov		your group's schedule			
11	27-Nov	Budgeting	Test your robot	CAD5		
12	4-Dec	Test your robot	Test your robot	GR2		
	Hand in all work no later than midnight EST Dec 12 2022 *No Extensions*					

COURSE OUTLINE – APPROVED ADVISORY STATEMENTS

ACADEMIC INTEGRITY

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. It is your responsibility to understand what constitutes academic dishonesty.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university. For information on the various types of academic dishonesty please refer to the <u>Academic Integrity Policy</u>, located at https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/

The following illustrates only three forms of academic dishonesty:

- plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
- improper collaboration in group work.
- copying or using unauthorized aids in tests and examinations.

AUTHENTICITY / PLAGIARISM DETECTION

Some courses may use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. For courses using such software, students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. A2L, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty.

Students who do not wish their work to be submitted through the plagiarism detection software must inform the Instructor before the assignment is due. No penalty will be assigned to a student who does not submit work to the plagiarism detection software. All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, other software, etc.). For more details about McMaster's use of Turnitin.com please go to www.mcmaster.ca/academicintegrity.

COURSES WITH AN ON-LINE ELEMENT

Some courses may use on-line elements (e.g. e-mail, Avenue to Learn (A2L), LearnLink, web pages, capa, Moodle, ThinkingCap, etc.). Students should be aware that, when they access the electronic components of a course using these elements, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in a course that uses on-line elements will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

ONLINE PROCTORING

Some courses may use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins.

CONDUCT EXPECTATIONS

As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the <u>Code of Student Rights & Responsibilities</u> (the "Code"). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, whether in person or online.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students' access to these platforms.

ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES

Students with disabilities who require academic accommodation must contact <u>Student Accessibility Services</u> (SAS) at 905-525-9140 ext. 28652 or <u>sas@mcmaster.ca</u> to make arrangements with a Program Coordinator. For further information, consult McMaster University's <u>Academic Accommodation of Students with Disabilities</u> policy.

REQUESTS FOR RELIEF FOR MISSED ACADEMIC TERM WORK

<u>McMaster Student Absence Form (MSAF)</u>: In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar "Requests for Relief for Missed Academic Term Work".

ACADEMIC ACCOMMODATION FOR RELIGIOUS, INDIGENOUS OR SPIRITUAL OBSERVANCES (RISO)

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the <u>RISO</u> policy. Students should submit their request to their Faculty Office *normally within 10 working days* of the beginning of term in which they anticipate a need for accommodation <u>or</u> to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

COPYRIGHT AND RECORDING

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, **including lectures** by University instructors

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

EXTREME CIRCUMSTANCES

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.



WELLNESS

Student Wellness Centre

On-Campus Support for Medical and Mental Health Concerns. Doctors and Counsellors available. Located in PGCL, 2nd Floor.

Mon-Fri 9AM-5PM 905-525-9140 ext. 27700 https://wellness.mcmaster.ca/contact-us/

Main St. West Urgent Care Centre

For immediate health concerns that do not require the emergency room. 690 Main St W - Mon-Sun 9AM-9PM

Emergency Rooms

For **immediate**, **serious** health concerns.

St. Joseph's Healthcare Hamilton 50 Charlton Ave E

McMaster Children's Hospital Students 17 and under

Telehealth Ontario

Telehealth Ontario is a free, confidential service you can call to get health advice or information. A Registered Nurse will take your call 24 hours a day, seven days a week. **Toll-free: 1-866-797-0000 Toll-free TTY: 1-866-797-0007**

Phone Lines

Good2Talk

Confidential helpline providing professional counselling, info and referrals for mental health, addiction, and well-being **1-866-925-5454**

LGBT Youthline

Confidential, non-judgemental & informed LGBTQQ2SI peer support. Sun-Fri, 4-9:30 PM, Text 647-694-4275

SACHA (SEXUAL ASSAULT CENTRE - HAMILTON AREA)

Confidential, anonymous 24-hour nonjudgmental telephone support for adults who have experienced sexual violence at any point in their lives; will provide accompaniment to hospital or police station for survivors wishing to seek medical attention or report; counselling services & public education

905-525-4162

Empower Me (Graduate Students)

24/7 accessible counselling services to empower you to thrive, crisis support, mental health and well-being services.

1-844-741-6389

Bounceback

CBT skills-building for mild to moderate depression and anxiety for people 15 or older. If accessed through self-referral, the client's primary care provider will be notified. **1-866-345-0224**

INDIGENOUS STUDENTS

> INTERNATIONAL STUDENTS

Indigenous Student Services

Academic & social counselling, employment aid LRW 1010 ext. 23788 indigenous.admin@mcmaster.ca indigenous.mcmaster.ca

International Student Services

Advising services for international students and exchange students GH 104 ext. 24254 iss@mcmaster.ca iss.mcmaster.ca

Student Success Centre

Academic skills assistance, job search, volunteering GH 110 ext. 24254 studentsuccess@mcmaster.ca

Student Accessibility Services

Disability services, assistive technology support MUSC B107 ext. 28652 sas@mcmaster.ca

TutorOcean

Student to Student Tutoring Services https://mcmaster.tutorocean.com/



ACADEMIC

Office of Student Financial aid and Scholarships

Emergency funding, government funds, OSAP assistance, scholarships, work programs GH 120 ext. 24319

https://www.msumcmaster.ca/services-directory/14-food-collective-centre

https://registrar.mcmaster.ca/aid-awards/

Food Collective Centre (FKA Mac Bread Bin)

The Food Collective Centre is a service run by students dedicated to cultivating stronger food systems in the McMaster and surrounding community. (MSU Service)

OOD

Neighbour 2 Neighbour

macbreadbin@msu.mcmaster.ca

Food bank, community kitchen, community counselling, help with paying for utilities, and more. Hamilton Mountain.

905-574-1334 http://www.n2ncentre.com/

CRISIS SUPPORT **Barrett Centre for Crisis Support**

Provides a safe environment in the community and responds to the needs of individuals, 16 years of age or older, who experience a mental health crisis and do not require a hospital stay. Confidential and free services 24/7/365

24 Hour Crisis Line: 905-529-7878, Toll Free: 1-844-777-3571

COAST (Crisis Outreach and Support Team)

Hamilton's crisis line is answered 24 hours a day, 7 days a week. The COAST mobile team, consisting of a mental health worker, and a police officer, will respond to crisis calls between the hours of 8 a.m. and 1 a.m. daily.

905-972-8338

Oakville Distress Centre

Distress Centre Halton provides telephone and online support to people to better cope with crisis, loneliness, and emotional stress. Also serves the Hamilton area. **905-849-4541**

Assaulted Women's Helpline

Free, anonymous and confidential telephone and TTY crisis telephone line to all women in the province of Ontario who have experienced any form of abuse.Provides crisis counselling, safety planning, emotional support, information and referrals accessible 24/7/365. Toll-free: 1-866-863-0511 TTY: 1-866-863-7868

Crisis Resources in the GTA

The CAMH Distress Crisis Resources web page lists a number of phone lines, response teams and hospitals in the GTA.

https://www.camh.ca/en/health-info/crisis-resources

Student Assistance Plan (Undergraduate)

Psychological counseling (offered in-person, over the phone, or over secure video) and academic-life services (legal consultation, financial consultation, life coaching, nutrition consultation and wellness resources offered virtually or in-person)

https://www.msumcmaster.ca/services-directory/36-health-and-dental-insurance/student-assistance-plan

Ombuds Office

Advice for students, staff, and faculty regarding academic and non-academic concerns. MUSC 210

ext. 24151 ombuds@mcmaster.ca mcmaster.ca/ombuds

SWHAT - Walk Safe Program

The Student Walk Home Attendant Team (SWHAT) is a volunteer service within the McMaster Students Union that will walk or bus with students during the evening hours 7 days a week, in all kinds of weather! (MSU Service) Ext. 27500

swhat@msu.mcmaster.ca

Student Support and Case Management

Student rights & responsibilities GH 207 ext. 23845 studentconduct.mcmaster.ca

Chaplaincy Centre

Pastoral support with personal counselling and bereavement support groups. MUSC 231 ext. 24207

McMaster Engineering Society

Support from other McMaster Engineering Students https://www.macengsociety.ca/

MSU PEER SUPPORT SERVICES

MSU Maccess

Maccess is a service that aims to build and maintain a campus that celebrates, advocates, and ensures inclusivity in the area of disability. A central aspect to Maccess is the provision of peer support by trained volunteers with lived experiences with disability such as chronic illness, mental illness, mental health concerns, neurodivergence, and additional identities.

Student Health Education Centre

SHEC is a peer-run health promotion, education, and referral service for McMaster University students. SHEC focuses on engaging with students about health-related issues through performances, peer support, fundraisers, and events. The service offers peer support, anonymous and confidential pregnancy testing, a resource library, condoms, lubricant, and menstrual products. SHEC's space is located in MUSC 202.

Women + Gender Equity Network

WGEN is a service that caters to women, transfolk, people who identify outside the gender binary, and all survivors of sexual assault. WGEN provides a safe(r) space and resource library on campus in MUSC 204. Volunteers in the space offer peer support and the service also runs a support group for survivors of domestic and intimate partner violence.

Pride Community Centre

The Pride Community Centre is a service of the McMaster Students Union. We provide a contact point for McMaster students that may identify as gay, lesbian, bisexual, transgender, queer, and/or any of the other diverse identities that make up our community. We offer educational programming and access to resources of interest, as well as peer support and a physical space for students to meet and socialize with each other. As advocates for gender & sexual diversity, the PCC's mandate upholds that LGBTQ+ students are entitled to a safe and supportive campus, absent of homophobia and transphobia, where the expression of one's gender & sexual identity is welcomed and respected.

McMaster University: 905-525-9140

OTHER

S L A D A A D S S C A D S