

MECH ENG 2A03 – Fall 2020

Writing	Graphics
Instructor: Dr. Greg Wohl Email: wohlg@mcmaster.ca	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. Also, please note the policy for "extreme circumstances" on the final page.

Writing Lecture: 1130-1230 Wed Microsoft Teams

Graphics Tutorial:

Section	Time	Location
T01	1030-1230 Mon	Microsoft Teams
T02	1030-1230 Tues	Microsoft Teams

- You can attend any lab or tutorial session you wish, regardless of your Mosaic enrollment. You are welcome to attend more than one lab or tutorial if you need assistance.

Lab: Per your schedule, on Microsoft Teams

Office hours: Dr. Hassan: 1330-1530 Fri Microsoft Teams

Dr. Wohl: 1430-1630 Wed Microsoft Teams

"Office hours" are when we are 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 we covered in lecture, get help with your project, get advice on problems with your group, or anything else that you would like our help with.

Contact guidelines:

- Dr. Hassan will be present at tutorials, Dr. Wohl will be present at lectures
A technician will be present during your labs
- Email will be replied to within 24h, but please include the course code (2A03) in the subject line, and follow these guidelines:

Topic	Contact
General Inquiries	me2a03@mcmaster.ca (Please use your McMaster email! Emails from your private email accounts tend to go to our junk mail folders.)
In class questions	Teams meeting chat
Mark adjustments/ grading questions	Email to professor only, please do not use Microsoft Teams (this helps to reduce messaging pop-ups for everyone)
Help with Inventor	Teams chat with Technician during labs

- If you need to speak with either Dr. Hassan or Dr. Wohl directly, you can come to open office hours on Microsoft Teams (see page 1) or make an appointment via email.
- During a video call/meeting/class the instructors' cameras will always be on, but your camera never needs to be, there's no need to show your face unless you want to.

Equipment/Text/Software:

- **Textbooks are optional.** You can use *Engineering Design Graphics* by Leake (the same as you used in ENG 1C03) for graphics reference, but no problems will be drawn from the text.

For Writing, the recommended text is *Writing in the Technical Fields: A Practical Guide, 2nd Edition* by Ewald (ISBN-13: 9780199021499).

Copies of these books are available in the [Campus Store](#).

- For labs, you may use your own device with Autodesk Inventor 2021 (download for free at [autodesk.ca](https://www.autodesk.com)). If you cannot use the software due to system limitations, you can access the Mechanical Engineering computer lab remotely; instructions will be posted on Avenue to Learn.

- Tutorials will require hand sketching of some kind, either on paper with pencil or a digital tablet (e.g. iPad, Wacom tablet). As long as the drawing is legible, either paper or digital is acceptable. Please have the equipment required to hand sketch ready for each tutorial session.
- Course materials will be posted on Avenue. Please check your McMaster email for updates.
- Lecture, tutorial and labs will be hosted on Microsoft Teams. Please download the Microsoft Teams software on your device and join the team (link posted on Avenue).

Lectures/Labs/Tutorials:

- It is mandatory to come prepared to lectures, tutorials, and labs. Lectures and tutorials will have participation activities / assignments that will be graded (see page 4).
- Lecture content for the writing component will be provided in advance on *Avenue to Learn*. It is mandatory to review the lecture content in advance to be prepared for the group assignments in lecture.
- If you cannot attend the lecture or tutorial synchronously due to connection problems or illness, a recording will be posted on Microsoft Teams with links from Avenue.
- Labs may be completed at home on your own device, but a technician will be available on Microsoft Teams during the lab period to help with questions you may have about the software.
- Work will be assigned in lecture, tutorial, and labs to be completed by the end of the respective class time. Generally, you should be able to complete your in-class graphics work in the tutorial or lab periods and writing assignments in lecture. Your work will be handed in at the end of classes (lectures, tutorials, and labs) via Avenue.

Assignments

- **In-class assignments:** Every class (lecture and tutorial) there will be an in-class assignment. Assignments will be posted on Avenue, and they can be completed even if you do not attend class.
 - If you do not complete your work during lecture or tutorial, you can hand in in-class assignments as late as **930 am the following Monday** with no penalty, no need to email or MSAF the Avenue dropbox will simply remain open. If you require more time than this grace period for your submissions, contact Dr. Hassan (graphics) or Dr. Wohl (writing).
 - We implemented this policy because we want to grade your best work and we care about your stress level.
 - We recommend that you try to complete the work “in class” to keep up with the weekly work. This is intended to help you keep a schedule.
 - 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 etc.
 - Things that affect our ability to hand in work happen to all of us at some point, so we are extending you a bit of “grace” with this policy. In return, we ask that you do the same to your teammates and treat each other kindly as you work together.
 - Please note: At 9:30 am on Monday (the end of the grace period) each week, the dropbox for the in-class assignments from the previous week will close, any assignment not submitted will be considered late and will receive a zero. [See grading for specific details]
- **Writing Assignments:** In addition to the in-class writing assignments, four (4) reports and one (1) group report will be assigned to complete outside of class. (See page 6 for grading.)
- Rubric feedback will be posted on Avenue, if after reviewing the guide you think that your assignment has a grading error, send Dr. Hassan (Graphics) or

Dr. Wohl (Writing) an email **detailing the error specifically** and we will re-grade your work. Keep in mind that we will re-grade the entire assignment, not just the criteria that you have identified. If that re-grading yields a lower grade, we will not adjust your grade, but if it yields a higher one we will. Questioning your grade will never result in a penalty for you.

- All submissions must be digital, pdf files, via Avenue. 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. **Handwritten writing assignments, drawings submitted on lined paper, or drawings that are illegible for another reason will be given a grade of 0.**
- Your lowest 20% of in-class quizzes will be dropped. For example, if 15 quizzes are handed in during the term, we 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%)
 - Quizzes will have a deadline of 24h after the tutorial or lecture ends
- A MSAF results in an additional one week to complete your work, not cancellation of that work.
- All course work **MUST** be handed in by the end of day (midnight) one week after the last day of classes, which is December 15, 2020, no extensions.

Teamwork:

- Teamwork is a critical part of this class and a critical part of engineering practice.
- 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.

Research:

You may be invited to participate in a research study being conducted by Dr. Hassan and Dr. Wohl. 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 and Dr. Wohl will not ever know if you participate in any research study.

Course Grade Breakdown:

Writing – 40%	Graphics – 60%
<ul style="list-style-type: none">• Group Report - 10%• Individual Memos – 15%• In-class Assignments – 10%• Participation via Avenue Quiz – 5%	<ul style="list-style-type: none">• Group Assembly – 16%• Individual Tutorial Work – 15%• Individual Lab Work – 14%• Individual Assembly – 10%• Participation via Avenue Quiz – 5%

Learning Outcomes:

By the end of the course, the student should be able to:

1. Proficiently use a solid modeling CAD system to create part and assembly models and to generate drawings and bills of material;
2. Properly dimension engineering drawings according to national standards;
3. Select appropriate views and use drawing conventions such as sectioning and auxiliary views to communicate part design information;
4. Perform geometric developments and kinematic linkage motion analysis using CAD;
5. Generate machine components such as cams using CAD design tools and access standard parts from CAD libraries;
6. Communicate effectively in a variety of written forms of technical communication, with a focus on technical memorandums (memos), laboratory reports and email;
7. Effectively construct and implement a variety of graphical communication tools in their oral and written technical communications.
8. These include, but are not limited to: tables, line plots and bar charts;
9. Correctly employ citation methods in their technical documents;
10. Demonstrate awareness of some of the issues surrounding technical communications and professional ethics within the context of Professional Engineering in protecting the public and the public interest;

Graduate Attributes:

MECHENG 2A03 provides the student the opportunity to develop competence in the following CEAB graduate attributes:

Graduate Attributes	Learning Outcomes where it is measured
Knowledge base for Engineering 1.3 Competence in Engineering Fundamentals 1.4 Competence in Specialized Engineering Knowledge	2, 3 1, 4, 5
Use of Engineering Tools 5.2 Demonstrates an ability to use modern/state of the art tools	1, 4, 5
Communication skills 7.3 Constructs effective oral or written arguments as appropriate to the circumstances	6 – 9
Professionalism 8.1 Demonstrate an understanding of the role of the engineer in society, especially in protection of the public and public interest	10

Weekly Plan

Assignment numbering: What it is+Week Number, CAD2=CAD handed in for week 2

Week of		Tutorial	Lab	Writing
0	07-Sep	No tutorial	No Lab- watch refresher CAD video on own time	No Lecture
1	14-Sep	Adjust/design part, make sketch, SKETCH1 [1.5%]	Technical drawing of given part, CAD1 [2%]	First Lecture 10 September
2	21-Sep	Adjust/design part, make sketch, SKETCH2 [1.5%]	Technical drawing of given part, CAD2 [2%]	Memo 1 - Letter of Engagement [5%]
3	28-Sep	Adjust/design part, make sketch, SKETCH3 [1.5%]	Technical drawing of given part, CAD3 [2%]	
4	05-Oct	Adjust/design part, make sketch, SKETCH4 [1.5%]	Technical drawing of given part, CAD4 [2%]	Memo 2 – Measurement chart [5%]
5	19-Oct	Adjust/design part, make sketch, SKETCH5 [1.5%]	Individual Assembly work	
6	26-Oct	Adjust/design part, make sketch, SKETCH6 [1.5%]	Hand in Individual Assembly [10%]	Memo 3 – Ethics [5%]
7	02-Nov	Adjust/design part, make sketch, SKETCH7 [1.5%]	Technical drawing of given part, CAD7 [2%]	
8	09-Nov	Adjust/design part, make sketch, SKETCH8 [1.5%]	Technical drawing of given part, CAD8 [2%]	
9	16-Nov	Adjust/design part, make sketch, SKETCH9 [1.5%]	Technical drawing of given part, CAD9 [2%]	Group report due [10%]
10	23-Nov	Adjust/design part, make sketch, SKETCH10 [1.5%]	Group simulation work	
11	30-Nov	Group simulation work	Group simulation work	
12	07-Dec	Group simulation work	No Lab, hand in group simulation [16%]	Individual Instruction set [10%]
Hand in all work no later than 15 Dec 2020 *No Extensions*				

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 [Academic Integrity Policy](https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/), 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

[NOTE: MECHENG 2A03 uses Turnitin.com for written assignments]

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 [Code of Student Rights & Responsibilities](#) (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 [Student Accessibility Services](#) (SAS) at 905-525-9140 ext. 28652 or sas@mcmaster.ca to make arrangements with a Program Coordinator. For further information, consult McMaster University’s [Academic Accommodation of Students with Disabilities](#) policy.

REQUESTS FOR RELIEF FOR MISSED ACADEMIC TERM WORK

McMaster Student Absence Form (MSAF): 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 [RISO](#) 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 or 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.

STUDENT SUPPORTS

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

Indigenous Student Services

Academic & social counselling, employment aid
LRW 1010

ext. 23788

indigenous.admin@mcmaster.ca
indigenous.mcmaster.ca

INTERNATIONAL STUDENTS

International Student Services

Advising services for international students and exchange students
GH 104

ext. 24254

iss@mcmaster.ca
iss.mcmaster.ca

STUDENT SUPPORTS

ACADEMIC

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/>

FINANCIAL

Office of Student Financial aid and Scholarships

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

ext. 24319
<https://registrar.mcmaster.ca/aid-awards/>

FOOD

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)

macbreadbin@msu.mcmaster.ca
<https://www.msumcmaster.ca/services-directory/14-food-collective-centre>

Neighbour 2 Neighbour

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 SUPPORTS

OTHER

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.