

IBEHS 2R00/3R00/4R00

Current Research Initiatives

Fall/Winter 2020-2021

1. INSTRUCTIONAL TEAM

INSTRUCTOR

Dr. Anna Korol
korola3@mcmaster.ca

TEACHING ASSISTANT

Chitman Josan
josanck@mcmaster.ca

2. COURSE DESCRIPTION

Each year students will complete 1.5 units of this course with final evaluation occurring in Level V. Students will attend and document 6-12 learning opportunities each year. This may include events, seminars, talks or podcasts in the health sciences, bioengineering or entrepreneurship domains. Your reflection on these activities will occur in two forms: (1) during group discussions with your classmates, TA and instructor; (2) through a written Event Submission Form (ESF).

Upon successful completion of the course, you should be able to:

LO.01	Explore beyond the classroom in order to connect with current issues, ideas, and questions in the fields of health, biomedical engineering and entrepreneurship
LO.02	Formulate bigger picture questions and gain new perspectives
LO.03	Identify personal learning needs and figure out how to find and pursue opportunities that will fulfill those needs
LO.04	Formulate a real-world stance by synthesizing information from various sources
LO.05	Explore and Reflect upon what fields, problems and issues you want to work on throughout your undergraduate program and afterwards in potential career pathways
LO.06	Participate in creating a collaborative learning community

3. SCHEDULE AND ONLINE DELIVERY

VIRTUAL COMMUNICATION PLATFORMS

This course will be delivered completely online using Microsoft Teams (MS Teams).

On **MS Teams**, each student will be assigned to:

- (1) A '**General**' **4R00/3R00/2R00 channel** where you will be able to meet virtually with the entire class, when required, and keep connected throughout the year
- (2) A '**Private**' **group channel** where you will meet monthly within your small advisory groups to discuss learning experiences alongside your classmates, TA and instructor.

MS Teams will be used to:

- Virtually meet as a class or in your assigned advisory groups
- Keep connected with your HESE program-mates, share experiences, ask questions
- Course announcements, materials, templates (course outline, Plan of Action, Event Submission Form)
- Submit course work for grading into assignment drop-boxes
- View feedback

In special circumstances (i.e. technical difficulties) other platforms like Zoom may be utilized; students will be given notice if there is a change.

SCHEDULE

- Monthly group discussions on **select Fridays 10:30am – 12:20pm EST**
- Level 4 students will each rotate as advisory discussion leads. Check *Advisory Groups List* on MS Teams. Discussion leads will ensure discussions are kept on track and liaise with the instructor or TA regarding any questions or concerns within their group.

Term 1

Date	Time/Location/Activity
Sept 11, 2020	<p>10:30am-12:20pm EST</p> <ul style="list-style-type: none"> ● Introduction to course and expectations ● Breakout into private group channels for advisory group introductions ● Begin on Plan of Action to be submitted <u>before</u> next advisory meeting <p><u>Before next meeting</u> each Level 3 and 4 student will:</p> <ul style="list-style-type: none"> ● Look into health-related startup companies ● Consider using https://angel.co ● Choose one startup company that you feel offers a promising technology, product and/or service with a unique value proposition. You will pitch this startup to your group at the next meeting for their backing.
October 9	<p>10:30am-12:20pm EST *</p> <ul style="list-style-type: none"> ● Meet on MS Teams in Private Group Channels ● Briefly, discuss any interesting learning experiences from the month and any upcoming events of interest ● Each Level 3 and 4 student to describe and pitch their chosen health-related startup to their group ● In your groups, you will vote and choose one startup to back as a team that will then battle against other groups for capital from the HESE Investors <p>* Instructor or TA will join each group for 30 minutes (See page 4 of <i>Advisory Groups</i> file on MS Teams for schedule)</p>

<p>November 6</p>	<p>10:30am EST</p> <ul style="list-style-type: none"> • Meet on MS Teams in Private Group Channels • Prepare a 3-minute pitch to HESE Investors. Choose who will pitch on behalf of group <p>11:30am EST</p> <ul style="list-style-type: none"> • Meet on MS Teams General Channel with entire class, instructor and TA • Each group pitches their chosen startup to the entire class and competes for capital from HESE Investors • Each HESE Investor (i.e. YOU!) chooses how to invest their \$100,000. You may invest your money as you wish all into one company or diversify your portfolio across several companies. Note: you may not invest in your own group's company. • Company with highest investment splits the money between group members for term 2. *** <p>*** real money not guaranteed</p>
<p>December 4</p>	<p>Between 10:30am-12:20 EST *</p> <ul style="list-style-type: none"> • Meet on MS Teams Private Group Channels • By this meeting you are expected to have participated in <u>at least three</u> learning experiences. • 30-minute group discussions* with your instructor or TA sharing the learning experiences you have participated in • During this meeting each of you will have 3 minutes to share: (1) what you went to, watched and/or listened to throughout the term; (2) how these experiences connected to your learning and personal interests; (3) interesting tidbits, anecdotes, quotes; (4) your next steps and how you plan to progress further. <p>* See page 4 of <i>Advisory Groups</i> file on MS Teams for check-in schedule</p>

Term 2:

Date	Time/Location/Activity																																													
<p>Jan 15, 2021</p>	<p>10:30am-12:20pm EST*</p> <ul style="list-style-type: none"> Meet in new advisory group channels at the time of instructor check-in (30 minutes) Reflect on last term and revisit Plan of Action (not for submission) <table border="1" data-bbox="506 541 1433 953"> <thead> <tr> <th>Team</th> <th>Date</th> <th>Time</th> <th>Instructor/TA</th> <th>Meeting Lead</th> </tr> </thead> <tbody> <tr><td>1</td><td>15-Jan</td><td>10:30</td><td>AK</td><td>Yuvenne</td></tr> <tr><td>2</td><td>15-Jan</td><td>10:30</td><td>CJ</td><td>Jacqueline</td></tr> <tr><td>3</td><td>15-Jan</td><td>11:00</td><td>AK</td><td>Eugene</td></tr> <tr><td>4</td><td>15-Jan</td><td>11:00</td><td>CJ</td><td>Yumna</td></tr> <tr><td>5</td><td>15-Jan</td><td>11:30</td><td>AK</td><td>Vikash</td></tr> <tr><td>6</td><td>15-Jan</td><td>11:30</td><td>CJ</td><td>Zarik</td></tr> <tr><td>7</td><td>15-Jan</td><td>12:00</td><td>AK</td><td>Mackenzie</td></tr> <tr><td>8</td><td>15-Jan</td><td>12:00</td><td>CJ</td><td>Yiji</td></tr> </tbody> </table> <p>Before next meeting each Level 3 and 4 student will:</p> <ul style="list-style-type: none"> Look into health-related startup companies Consider using https://angel.co Choose one startup company that you feel offers a promising technology, product and/or service with a unique value proposition. You will pitch this startup to your group at the next meeting for their backing. 	Team	Date	Time	Instructor/TA	Meeting Lead	1	15-Jan	10:30	AK	Yuvenne	2	15-Jan	10:30	CJ	Jacqueline	3	15-Jan	11:00	AK	Eugene	4	15-Jan	11:00	CJ	Yumna	5	15-Jan	11:30	AK	Vikash	6	15-Jan	11:30	CJ	Zarik	7	15-Jan	12:00	AK	Mackenzie	8	15-Jan	12:00	CJ	Yiji
Team	Date	Time	Instructor/TA	Meeting Lead																																										
1	15-Jan	10:30	AK	Yuvenne																																										
2	15-Jan	10:30	CJ	Jacqueline																																										
3	15-Jan	11:00	AK	Eugene																																										
4	15-Jan	11:00	CJ	Yumna																																										
5	15-Jan	11:30	AK	Vikash																																										
6	15-Jan	11:30	CJ	Zarik																																										
7	15-Jan	12:00	AK	Mackenzie																																										
8	15-Jan	12:00	CJ	Yiji																																										
<p>Feb 12, 2021</p>	<p>10:30am-12:20pm EST *</p> <ul style="list-style-type: none"> Meet on MS Teams in Private Group Channels. Meeting Leads to determine how much time is needed. Instructor or TA will join each group for 30 minutes according to schedule below. Each Level 3 and 4 student to describe and pitch their chosen health-related startup to their group In your groups, you will vote and choose one startup to back as a team that will then battle against other groups for capital from the HESE Investors in the next class. <table border="1" data-bbox="506 1654 1433 1927"> <thead> <tr> <th>Team</th> <th>Date</th> <th>Time</th> <th>Instructor/TA</th> <th>Meeting Lead</th> </tr> </thead> <tbody> <tr><td>1</td><td>12-Feb</td><td>10:30</td><td>CJ</td><td>Elaina</td></tr> <tr><td>2</td><td>12-Feb</td><td>10:30</td><td>AK</td><td>Arham</td></tr> <tr><td>3</td><td>12-Feb</td><td>11:00</td><td>CJ</td><td>Wesley</td></tr> <tr><td>4</td><td>12-Feb</td><td>11:00</td><td>AK</td><td>Brendan</td></tr> <tr><td>5</td><td>12-Feb</td><td>11:30</td><td>CJ</td><td>Taha</td></tr> </tbody> </table>	Team	Date	Time	Instructor/TA	Meeting Lead	1	12-Feb	10:30	CJ	Elaina	2	12-Feb	10:30	AK	Arham	3	12-Feb	11:00	CJ	Wesley	4	12-Feb	11:00	AK	Brendan	5	12-Feb	11:30	CJ	Taha															
Team	Date	Time	Instructor/TA	Meeting Lead																																										
1	12-Feb	10:30	CJ	Elaina																																										
2	12-Feb	10:30	AK	Arham																																										
3	12-Feb	11:00	CJ	Wesley																																										
4	12-Feb	11:00	AK	Brendan																																										
5	12-Feb	11:30	CJ	Taha																																										

	<table border="1"> <tbody> <tr> <td>6</td> <td>12-Feb</td> <td>11:30</td> <td>AK</td> <td>Laila</td> </tr> <tr> <td>7</td> <td>12-Feb</td> <td>12:00</td> <td>CJ</td> <td>Chelsea</td> </tr> <tr> <td>8</td> <td>12-Feb</td> <td>12:00</td> <td>AK</td> <td>Raymond</td> </tr> </tbody> </table>	6	12-Feb	11:30	AK	Laila	7	12-Feb	12:00	CJ	Chelsea	8	12-Feb	12:00	AK	Raymond					
6	12-Feb	11:30	AK	Laila																	
7	12-Feb	12:00	CJ	Chelsea																	
8	12-Feb	12:00	AK	Raymond																	
<p>March 12, 2021</p>	<p>10:30am EST</p> <ul style="list-style-type: none"> Meet on MS Teams in Private Group Channels Prepare a 3-minute pitch to HESE Investors. Choose who will pitch on behalf of group <p>11:30am EST</p> <ul style="list-style-type: none"> Meet on MS Teams General Channel with entire class Each group pitches their chosen startup to the entire class and competes for capital from HESE Investors Each HESE Investor (i.e. YOU!) chooses how to invest their \$100,000. You may invest your money as you wish all into one company or diversify your portfolio across several companies. Note: you may not invest in your own group's company. <p><u>Before next class, Final Reflections to be submitted (April 9th):</u></p> <ul style="list-style-type: none"> Reflect on your learning experiences in this course across the year based on your ESF events How did these experiences connect to your learning and personal interests and what's next for you Include interesting tidbits, anecdotes, quotes, etc. 																				
<p>April 9, 2021</p>	<p>Between 10:30am-12:20 EST *</p> <ul style="list-style-type: none"> Meet on MS Teams Private Group Channels at the time of instructor check-in (30 minutes) By this meeting you are expected to have participated in <u>at least three</u> learning experiences. 30-minute group discussions with your instructor or TA sharing the learning experiences you have participated in During this meeting each of you will have 3 minutes to share: (1) what you went to, watched and/or listened to throughout the term; (2) how these experiences connected to your learning and personal interests; (3) interesting tidbits, anecdotes, quotes; (4) your next steps and how you plan to progress further. <table border="1"> <thead> <tr> <th>Team</th> <th>Date</th> <th>Time</th> <th>Instructor/TA</th> <th>Meeting Lead</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>09-Apr</td> <td>10:30</td> <td>AK</td> <td>Josie</td> </tr> <tr> <td>2</td> <td>09-Apr</td> <td>10:30</td> <td>CJ</td> <td>Hosam</td> </tr> <tr> <td>3</td> <td>09-Apr</td> <td>11:00</td> <td>AK</td> <td>Connor</td> </tr> </tbody> </table>	Team	Date	Time	Instructor/TA	Meeting Lead	1	09-Apr	10:30	AK	Josie	2	09-Apr	10:30	CJ	Hosam	3	09-Apr	11:00	AK	Connor
Team	Date	Time	Instructor/TA	Meeting Lead																	
1	09-Apr	10:30	AK	Josie																	
2	09-Apr	10:30	CJ	Hosam																	
3	09-Apr	11:00	AK	Connor																	

	4	09-Apr	11:00	CJ	Sean
	5	09-Apr	11:30	AK	Lubna
	6	09-Apr	11:30	CJ	Konrad
	7	09-Apr	12:00	AK	Fatima
	8	09-Apr	12:00	CJ	Monica

OFFICE HOURS

The **Friday 10-30am-12:20pm EST** timeslot will be blocked off in the instructor's calendar. If you are interested in meeting with the instructor or TA outside of classes, please email them directly to schedule a meeting during this Friday timeslot during one of the weeks without class.

4. COMMUNICATION POLICY

Please use email to directly contact the TA or instructor. Please do not use Avenue or Teams as instructors will not respond on these platforms. Every attempt will be made to reply within 24 hours (excluding weekends). When emailing please include a subject prefix of "IBEHS R00", use appropriate and professional conduct (e.g. salutation) and include your full name and student number in your email. Emails must be sent from your @mcmaster.ca account.

5. COURSE EXPECTATIONS

Students will participate in and document 6-12 learning experiences each year (at least 3 per term). These learning experiences should demonstrate a commitment towards broadening your horizons and are an opportunity for you to make connections between your academic work, extracurricular activities and personal interests.

These experiences may include attending virtual events, online talks or seminars or listening to podcasts that relate to the health sciences, bioengineering or entrepreneurship domains or topics that inspire your personal growth in these domains. Each "event" must be at least 30 minutes in length in order to be considered for an ESF.

Students must complete:

Yearly Plan of Action

- To be submitted before second class
- If applicable, look back on past R00 ESFs and experiences. What are the common themes, what's missing, are you pushing yourself far enough?
- Use provided template as a guide

Event Submission Forms (ESFs)

- **Three written reports per term** where you reflect on each learning experience you participated in.
- At least one submitted before each advisory meeting or else will not be counted towards completion of this course
- Use provided template as a guide

Advisory Meetings

- HESE Investor Group activities
- Discussion on the learning experiences you have participated in with your advisory group, TA or instructor. Advisory groups list to be posted on MS Teams
- Before each advisory meeting you are expected to have participated in at least one learning experience with corresponding submission of ESF

Final Reflection

- Submit at the end of term 2 (required before advancing to subsequent years)

NOTES ON ESFS

A few things to keep in mind when submitting ESFs:

- Do not answer in bullet point format. Elaborate and provide a more concise statement
- Clubs/extracurricular activities that you are already a part of will not be considered (this also includes paid work). Events/activities/experiences that are done outside of your current commitments will be considered.
- Events that are similar to a previous submitted ESF will not be accepted. Aim to participate in a broad range of events/experiences throughout the year to gain the most exposure to enrich your undergraduate learning.
- If you are not sure if an event/experience will be accepted, speak with the instructor or TA beforehand
- Links/posters need to be included or attached to the report in order to be accepted.

ATTENDANCE

- Students are required to be present for all virtual Advisory Meetings
- If you are aware that you will not be present for one of the meetings, let your instructor know immediately in order to discuss alternatives
- If students are unable to attend due to technical difficulties or extreme circumstances, students will be expected to submit an alternative assessment in lieu of this absence
- Preparation and participation during classes is an essential component of this course, both for the learning benefit of the student and our classroom community, as well as out of respect for any invited guests. Students who are committed and actively engaged will get the most out of this course.

6. POLICIES

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 INTEGRITY

You are to exhibit honesty and use ethical behavior in all aspects of the learning process, especially in a complete virtual environment. Academic credentials you earn are rooted in principles of honesty and academic integrity. **Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage.** Acting with academic dishonesty can result in serious academic consequences such as a grade of zero on an assignment, loss of credit with a notation on transcript (i.e. Grade of F assigned for academic dishonesty), and in severe cases, suspension or expulsion from the university. **It is your responsibility to understand what constitutes academic dishonesty.** Please see the Academic Integrity Policy on the McMaster University website. Three forms of academic dishonesty in this course include:

- Plagiarism (i.e. the submission of work that is not your/group's own for which others have been given credit for)
- Improper collaboration on group work and
- Copying or using unauthorized aids in examinations.

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.

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

Students that require academic accommodation for religious, indigenous or spiritual observances should read and follow the RISO policy. Students that require RISO accommodation should submit their request to the Faculty or Program Office within 10 working days at the beginning of the term they require this accommodation. Alternatively, it can be submitted to the Registrar's office before examinations. Students should also inform the professor or course coordinator as soon as possible to create alternative arrangements for classes or assessments missed.

REQUESTS FOR MISSED ACADEMIC TERM WORK (MSAF)

In the event of an absence, medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar as follows: Requests for Relief for Missed Academic Term Work.

1. All MSAFs are to be directed to the instructor through email.

2. It is the prerogative of the instructor of the course to determine the appropriate relief for missed term work in this course. Please refer to above for alternative assessments in the case of missed synchronous work.

ONLINE ELEMENT

This course uses **Microsoft Teams**. Students should be aware that, when they make use of these platforms, information such as first and last names, usernames for the McMaster email 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.

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. Students must not disseminate these materials to others not registered in the course, or post to third-party websites.

The recording of lectures, tutorials, or other methods of instruction may occur during a course, either by the instructor for instructional purposes; students may make recordings for the purpose of personal study but must not be disseminated in any form. 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.

REFERENCE TO RESEARCH ETHICS

The two principles underlying integrity in research in a university setting are these: a researcher must be honest in proposing, seeking support for, conducting, and reporting research; a researcher must respect the rights of others in these activities. Any departure from these principles will diminish the integrity of the research enterprise. This policy applies to all those conducting research at or under the aegis of McMaster University. It is incumbent upon all members of the university community to practice and to promote ethical behaviour. To see the Policy on Research Ethics at McMaster University, please go to <https://reo.mcmaster.ca/>.

EXTREME CIRCUMSTANCES

The University reserves the right to change dates and deadlines on all courses in extreme circumstances such as severe weather, labour disruptions, etc. Changes can be communicated through communication channels like the McMaster Daily News, Avenue, Teams or email.

NOTICE REGARDING POSSIBLE COURSE MODIFICATION

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

HEALTH AND WELLNESS RESOURCES FOR STUDENTS

As a signatory on the Okanagan Charter, McMaster University is committed to enhancing mental health and wellness and provides various resources for students to manage their well-being. Students are encouraged to seek support as necessary; the following are several campuses- and community-based resources that you may find helpful. For more resources and additional information, please visit the [Student Wellness Centre](#).

ON-CAMPUS RESOURCES:

- **Student Wellness Centre:** Provides counselling, medical services, wellness education, guided self-help, and other relevant resources. PGCLL 210; 905-525-9140, x27700; <https://wellness.mcmaster.ca>
- **Sexual Violence Support:** An on-campus resource where students, staff, and faculty of all backgrounds and social identities can find support and information about sexual, intimate partnership or family violence. UH 104; 905-525-9140 x20909; <https://svpro.mcmaster.ca>
- **Faculty/Program Office:** Feel free to contact an Academic Advisor in your Faculty/Program Office who can connect with academic advising and connect you with other resources.

OFF-CAMPUS RESOURCES:

- **Good2Talk:** Free, confidential helpline providing professional counselling and information and referrals for mental health, addictions and well-being to post-secondary students in Ontario, 24/7/365; 1-866-925-5454; <https://good2talk.ca>
- **Togetherall:** Online peer-to-peer chat-based service that provides mental health and wellbeing support, 24/7/365. <https://www.togetherall.com/>
- **SACHA (Sexual Assault Centre - Hamilton Area):** Confidential, anonymous 24-hour nonjudgmental telephone support for adults who have experienced sexual violence. 905-525-4162; <http://sacha.ca>
- If you have immediate safety concerns for yourself or others, call **Campus Security** who will respond with the **MSU Emergency First Response Team (EFRT)** at 905-522-4135 or call 911 if you are off campus.

LAND ACKNOWLEDGEMENT

McMaster University recognizes and acknowledges that it is located on the traditional territories of the Mississauga and Haudenosaunee nations, and within the lands protected by the Dish with One Spoon wampum agreement.

Integrated Biomedical Engineering & Health Sciences (IBEHS) Labs/Design Studio Safety

Information for Laboratory Safety and Important Contacts

This document is for users of IBEHS instructional laboratories at the following locations:

- ETB - 533/534 (Medical Imaging & Medical Instrumentation Labs)
- ABB - C104 (Design Studio)
- HSC - 4N72 (Genetic Engineering Lab)

This document provides important information for the healthy and safe operation of IBEHS instructional laboratories. This document is required reading for all laboratory supervisors, instructors, researchers, staff, and students working in or managing instructional laboratories in IBEHS. It is expected that revisions and updates to this document will be done continually. A McMaster University [lab manual](#) is also available to read in every laboratory.

General Health and Safety Principles

Good laboratory practice requires that every laboratory worker and supervisor observe the following:

1. Food and beverages are not permitted in the instructional laboratories.
2. A Laboratory Information Sheet on each lab door identifying potential hazards and emergency contact names should be known.
3. Laboratory equipment should only be used for its designed purpose.
4. Proper and safe use of lab equipment should be known before using it.
5. The course TA leading the lab should be informed of any unsafe condition.
6. The location and correct use of all available safety equipment should be known.
7. Potential hazards and appropriate safety precautions should be determined, and sufficiency of existing safety equipment should be confirmed before beginning new operations.
8. Proper waste disposal procedures should be followed.
9. [Personal ergonomics](#) should be practiced when conducting lab work.
10. [Current University health and safety](#) issues, and protocols should be known.

Location of Safety Equipment

Fire Extinguisher

On walls in halls outside of labs or
ABB C103/A

First Aid Kit

ETB 534/A, ABB C103/A, HSC 4N72 or dial
"88" after 4:30 p.m.

Telephone

On the wall of every lab near the door

Fire Alarm Pulls

Near all building exit doors on all floors

Who to Contact

Emergency Medical / Security:

On McMaster University campus, call Security at extension **88** or **905-522-4135** from a cell phone.

Hospital Emergency Medical / Security:

For McMaster HSC, call Security at extension **5555** or **905-521-2100** from a cell phone.

Non-Emergency Accident or Incident: Immediately inform the TA on duty or Course Instructor.

University Security (Enquiries / Non-Emergency):

Dial 24281 on a McMaster phone or dial 905-525-9140 ext. 24281 from a cell phone.

See TA or Instructor: For problems with heat, ventilation, fire extinguishers, or immediate repairs.

Environmental & Occupational Health Support Services (EOHSS): For health and safety questions dial 24352 on a McMaster phone or dial 905-525-9140 ext. 24352 from a cell phone.

IBEHS Specific Instructional Laboratory Concerns: For non-emergency questions specific to the IBEHS laboratories, please contact appropriate personnel below from a McMaster phone...

- Leela Pilli – 26888
- Parmveer Bola – 23521
- Alexa Huang – 24548

In Case of a Fire (Dial 88)

When calling to report a fire, give name, exact location, and building.

1. Immediately vacate the building via the nearest Exit Route. Do not use elevators!
2. Everyone is responsible for knowing the location of the nearest fire extinguisher, the fire alarm, and the nearest fire escape.
3. The safety of all people in the vicinity of a fire is of foremost importance. But do not endanger yourself!
4. In the event of a fire in your work area shout "*Fire!*" and pull the nearest fire alarm.
5. Do not attempt to extinguish a fire unless you are confident it can be done in a prompt and safe manner utilizing a hand-held fire extinguisher. Use the appropriate fire extinguisher for the specific type of fire. Most labs are equipped with Class A, B, and C extinguishers. Do not attempt to extinguish Class D fires which involve combustible metals such as magnesium, titanium, sodium, potassium, zirconium, lithium, and any other finely divided metals which are oxidizable. Use a fire sand bucket for Class D fires.
6. Do not attempt to fight a major fire on your own.
7. If possible, make sure the room is evacuated; close but do not lock the door and safely exit the building.

Clothing on Fire

Do not use a fire extinguisher on people.

1. Douse with water from safety shower immediately or
2. Roll on floor and scream for help or
3. Wrap with fire blanket to smother flame (a coat or other nonflammable fiber may be used if blanket is unavailable). Do not wrap a standing person; rather, lay the victim down to extinguish the fire. The blanket should be removed once the fire is out to disperse the heat.

Equipment Failure or Hazard

Failure of equipment may be indicative of a safety hazard - You must report all incidents.

Should you observe excessive heat, excessive noise, damage, and/or abnormal behaviour of the lab equipment:

1. Immediately discontinue use of the equipment.
2. In Power Lab, press wall-mounted emergency shut-off button.
3. Inform your TA of the problem.
4. Wait for further instructions from your TA.
5. TA must file an incident report.

Protocol for Safe Laboratory Practice

Leave equipment in a safe state for the next person - if you're not sure, ask!

Defined Roles

TA	The first point of contact for lab supervision	
IBEHS Lab Technician	Leela Pilli	pillil@mcmaster.ca
IBEHS Instructional Assistant	Parmveer Bola	bolap1@mcmaster.ca
IBEHS Co-Directors	Dr. Greg Wohl	wohlg@mcmaster.ca
	Dr. Michelle MacDonald	macdonml@mcmaster.ca
IBEHS Administrator	Alexa Behar-Bannelier	huanqa2@mcmaster.ca
IBEHS Course Instructor	Please contact your specific course instructor directly	