Dr. Ravi Selvaganapathy & Dr. Ram Mishra
Co-Directors

Lubna Saleh
Administrative Co-Ordinator, Graduate Programs

Jane Mah
Graduate Administrative Assistant
BME Welcome Event

- Welcome New Students
- Peer Mentors – New September 2020
- Core course Requirements
- BME Symposium
- BME Graduate Student Club (BMEGA)
- EGS, Engineering Graduate Society,
  - Paramita Bhattacharyya
- HSGS Student Ambassador
- BME Newsletter
- CUPE 3906, Chris Fairweather
Enrollment: Sept. 2021
for 2021-2022 academic year

<table>
<thead>
<tr>
<th>New Masters</th>
<th>New PhD</th>
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</thead>
<tbody>
<tr>
<td>35 MASc (9 OT, 2 OOT) - 24</td>
<td>2 New</td>
</tr>
<tr>
<td>46 PhD (7 OT, 2 OOT) - 37</td>
<td>2 Admit to PhD</td>
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<tr>
<td>1 MD/PHD</td>
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<tr>
<td>20 OT/OOT</td>
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<tr>
<td>82 Total BME Students</td>
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New MASc Students 2021

September 2021
• Ana Arezina – B. Zhang, D. Latulippe
• Cole Dennis – C. Quenneville
• Ronald Luo – J. Deen
• Bodee Quansah – R. Zheng
• Ryan Singer – J. Hirota
• Alexander Sotra – B. Zhang
• 6

May 2021
• Alex Amador Tejada – M. Noseworthy
• Kimia Asadi Jozani – B. Zhang
• Joshua Blazina – T. Farncombe
• Liam Burrows – C. Quennville
• Gurpreet Randhawa – T. Hoare
• Xu Mei – R. Selvaganapathy
• 6
New PhD Students 2021

September 2021
• Letizia Dondi – C. Filipe
• Mehraneh Tavakkoli Gilavan – R. Selvaganapathy
• 2

May 2021
• Andres Escobar Moya – C. Xu
• Mohammed Nikshoar – T. Didar
• Maedeh Khadamoradi – R. Selvaganapathy
• 3

January 2022
• Aidee Arizpe Tafoya – J. Moran Mirabal, J. Hirota
• Linan Cui – K. Sask, A. Turak
• Jiajie Gao – L. Soleymani
• Oksana Kutova – Q. Fang
• Shirin Nour - – R. Selvaganapathy
• 5
Transfers/Admits to PhD

- Ethan Samson – M. Noseworthy, May 2021
- Mahnaz Tajik – M. Noseworthy, May 2021
- Andrew Lofts – T. Hoare, R. Mishra
- Calvin Zhu – M. Noseworthy
Scholarship Holders

NSERC MASTERS
  • Ana Arezina, Lyan Abdul Majeed, Alyssa Williams

OGS
  • Julia deLange, Andrew Lofts, Mason Kadem, Louis Garber, Joshua McGillivray

OGF Ontario Graduate Fellowship
  • Jonathan L’Heureux-Hache

Vanier
  • Shadman Khan
BME Peer Mentors

- In 2020 year we’ve introduced the BME Peer Mentorship program
- We’ve connected each new student with a current student
- Mentors are available to help answer questions about the program, the campus and overall life at McMaster
- Just to be there for any support and guidance that’s required
Masters Course Requirements

- Minimum of three ½ year graduate courses, to include the **CORE COURSE** (BME 701/706)

- Minimum of 2 of the 3 courses must be at the 700 level

- Mandatory training – H & S courses, SGS 101, SGS 201 (these courses must be completed in your first term of study in order to register for the following year)

Course Requirement Summary

- Masters Students require 3 half term courses to complete their MASc degree.

- MASc that complete their degree here in the school of BME, then move on to PhD will need 2 half term courses at the PhD level.

- McMaster BME MASc students that transfer to PhD without completing the MASc will need a total of 5 half term courses to complete their PhD degree (3 of which needed to be completed while they were still in the MASc).
Course Requirement Summary

- For students from health/life science backgrounds: at least 1 of the 2 courses beyond the core course should be from engineering/physical science offerings.

- For students from an engineering background: at least 1 of the 2 courses beyond the core course should be from health science offerings (ie Med Sci, some Biochem, some Biology: see Calendar for complete listing).

- Students who transfer to PhD need to take only 2 courses in addition to the MASc requirements.
Core Course – BME 701

- Modular course, covering the research areas of the school:
  
a) Medical Imaging  
b) Medical Robotics  
c) Biophotonics  
d) Mechanical Engineering  
e) Bioinstrumentation  
f) Biomedical Technology (e.g. biophotonics and medical robotics)  
g) Modelling of biomedical processes
Core Course – BME 701

- Term 1: September – December 2021
- One 3-hour session per week
  Tuesday, 2:00 - 5:00 pm
- Evaluation is prof-dependent
Core Course – BME 706

➢ Modular course, covering the research areas of the school:

a) Biological interactions with materials
b) Tissue engineering
c) Pharmacokinetics
d) Dialysis membranes
e) Genetic Engineering /Gene Therapy
f) Animal models and drug delivery
Core Course – BME 706

- Term 1: September – December 2021

- One 3-hour session per week (see course outline for details)

- Each section requires students to present a critical evaluation of some aspect of research in that area (e.g. a review of a published paper).

- Final presentation (larger scale)

- Thursday, 2:30- 5:30
Courses – Term 1

BIOMED 701: Biomedical Engineering 1 (core)
BIOMED 706/Chem 781 Bio. Eng. 2 (core)
BIOMED 707/ENGPHYS 709:
  Adv. Topic Biophontics
BIOMED/MEDSCI 771:
  Research Mth in Basic Heath Science
Courses – Term 2

BIOMED 709: Stat Health Science Research
BIOMED 711: Introduction to Biofabrication
BIOMED 715: Biomechanics of Injury Prevention
BIOMED 717: Topics in Orthopaedic Biomechanics
BIOMED 752: Advanced MEMS Fabrication & Microfluidics
BIOMED 762: Comp. Modeling Circulatory
BIOMED 799 (All terms)– Permission based, must sign up with Jane Mah and be directed under a specific supervisor

*** Email for Guidelines
Supervisory Committee Meetings

- For all Ph.D students & MASc.
- For MASc. students *admitted on or after September 2017

Student and supervisor organize committee (research supervisor(s) + 2 other profs) 1 must be from BME

- Arrange committee no later than first 6 months
- Committee meet once a year, but more than one meetings arranged if necessary
- A report from the meeting must be submitted to the BME Admin by November 30 of each year
Student Seminar Requirement:

Students must present one departmental seminar on their research in order to be eligible to graduate.

3 times per year:
- BME symposium
- Start of summer (FHS plenary)
- End of Summer (EGS -METRIC)
PhD Comprehensive Exam

- Normally taken between 12 – 20 months of first registering in the program.
- Research proposal on a topic related to but distinct from the student’s thesis topic
- Written document + oral examination
- Also BME questions of a more general nature
- A Report for the Exam must be submitted to the BME Graduate Admin Assistant
Thesis Requirement

- Students must complete a thesis embodying their original research
- Project assigned by supervisor(s)
- Thesis to be examined by a committee of faculty members appointed by the Director of the School (MASc) or SGS (PhD)
- These to be presented and defended by the candidate in an oral examination
- Three forms required to be submitted to the Graduate Admin for processing
BME Symposium

All students **must attend** the BME Symposium (MANDATORY)

1. Invited speakers
2. Opportunity for students to present
3. Oral and Poster sessions
4. Great prizes!
BME Symposium

Biomedical Engineering Symposium
April 25-26, 2019

Dr. Janie Wilson, McMaster University
"Orthopaedic Surgery Innovation through Biomechanics"

Dr. Christine Tardif, McGill University
"Multi-modal MRI of Cerebral Myelin"

Dr. Hubert de Bruin, McMaster University
"Biomedical Engineering: The History and Evolution of this Profession in Canada"

Dr. Sebastian Wachsmann Hogiu, McGill University
"Towards diagnosis at the point-of-need"

Dr. Natalie Reznikov, Object Research Systems Inc.
"Awesome Bones: Nature's Ingenious Solution to the Mundane Problem of Organisms"

Dr. Naomi Matsuura, University of Toronto
"Engineering Biomaterials for Ultrasound Imaging and Cancer Therapy"

Dr. Joseph M. Kinsella, McGill University
"3D Printing the Tumor Microenvironment ex-vivo"

For more information Please visit: https://bit.ly/ZUghWM0
or email Jane Mah: jane@mcmaster.ca

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Symposium Abstract Submission

Abstracts:
- Submissions are open to all students as long as they are related to the field of biomedical engineering
- There will be prizes for the top abstracts

Format:
- Maximum 1 page letter size (8.5 x 11 inches) including text and figures
- Minimum font size: 9 pt
- Format: Portable document format (PDF)

Deadline:
- Will be determined

Submission:
- Abstracts will be collected and reviewed
- Indicate whether you would like to be considered for an oral or poster presentation
FHS Research Plenary – May 25

2017 FHS Research Plenary
Awards Reception

http://fhs.mcmaster.ca/grad/research_plenary.html
This year EGS Reps: Lyan Abdul & Gurpreet Randhawa

For more information please email: egs@mcmaster.ca

Paramita Bhattacharyya
For more information, visit our website:
https://gsa.mcmaster.ca/healthscigsa/
HSGS Grad Student Ambassador

Graduate Student Ambassador Program

Sandy Zakaria, Masters Candidate
Biomedical Engineering
zakarias@mcmaster.ca

fhs.mcmaster.ca/grad/student_ambassador
CUPE 3906 Representative

Chris Fairweather