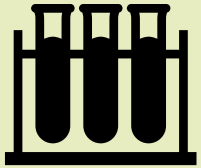
How to Secure an Undergraduate Research Position

Join Canada’s largest undergraduate engineering research program!

ENGINEERING | McMaster University

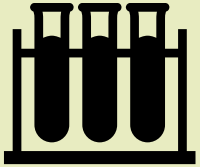
Explore Research Clusters



STEP 1

Select your preferred research cluster

Explore Research Clusters



Go To:

McMaster Engineering Website → Select “Research” tab → Click on “Research Clusters”

Explore Research Clusters

Areas of Professor Research

Advanced Manufacturing

The future of manufacturing is in higher levels of intelligent automation enabled by a systems-based approach.

Digital & Smart Systems

Increasing connectivity and digitization continues to change our world.

Energy

Energy is essential to heat our homes, make our products and fuel our cars.

Environment

Respect for the environment must be at the core of all engineering decisions in the future.

Health & Bio-innovation

Saving lives, improving health and wellness and overall quality of life are key goals of biomedical engineers.

Infrastructure

Sustainable and properly planned infrastructure improves our transportation networks, roads, community buildings, water and waste water supplies and access to power.

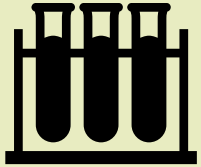
Micro-Nano Systems

Our devices, tools, and solutions are getting smaller.

Transportation

The way we travel and transport our goods is changing dramatically.

Study the Professors



STEP 1

Select your preferred research cluster

STEP 2

Scroll down to Related Faculty to learn more about the professors' area of research

STEP 3

Narrow it down to the **top 5-7 professors** you would like to work with

Study the Professors

Related Faculty

Dr. Jennifer Bauman

Assistant Professor
Department of Electrical & Computer Engineering

HYBRID AND ELECTRIC POWERTRAIN DESIGN AND CONTROL; POWER ELECTRONIC CONVERTERS; ADVANCED VEHICLE MODELING; SMART-CHARGING AND EV INTEGRATION INTO THE SMART-GRID

Dr. Lotfi Belkhir

Mechanical Engineering Class of 1962 Chair in Eco-Entrepreneurship
W Booth School of Engineering Practice and Technology

Associate Professor
W Booth School of Engineering Practice and Technology

ENTREPRENEURSHIP AND INNOVATION

Dr. James S. Cotton

Professor
Department of Mechanical Engineering

FLUID MECHANICS; HEAT TRANSFER; MODELING IN THERMO-FLUID SYSTEMS; MULTI-PHASE FLOWS; RENEWALS & SUSTAINABLE ENERGY SYSTEMS

Dr. Paulin Coulibaly

Professor
Department of Civil Engineering

HYDROLOGIC MODELLING; FLOOD FORECASTING; WATER RESOURCES; CLIMATE CHANGE IMPACT ADAPTATION; STATISTICAL HYDROLOGY; HYDROINFORMATICS; REMOTE SENSING HYDROLOGY; DATA ASSIMILATION; HYDROMETRIC NETWORK DESIGN

Dr. Emily Cranston

Adjunct Professor
Department of Chemical Engineering

Dr. Charles de Lannoy

Assistant Professor
Department of Chemical Engineering

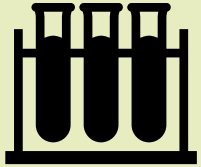
Dr. Jamal Deen

Distinguished University Professor
Department of Electrical & Computer Engineering

Dr. Sarah Dickson

Associate Professor
Department of Civil Engineering

Connect with Professors



STEP 1

Select your preferred research cluster

STEP 2

Learn more about the professors' area of research

STEP 3

Email faculty members about potential positions

Connect with Professors

Email Template

Hello Dr. [Insert Professor's Name],

1st Paragraph
Introduce yourself, your program, how you found out about the professor's research, and why you are passionate about it or how it aligns with your goals and values.

2nd Paragraph
Outline what makes you an excellent candidate for the position by highlighting a few pertinent points from your resume. Bullet points can be an asset as they can increase readability.

3rd Paragraph
Express a desire to discuss further. Thank the professor for their time.

Kind regards,
[Insert Your Name]

Connect with Professors

Sample Email to Professors

Hello Dr. Filipe,

My name is Christopher Zhang and I am in my 1st year of engineering, looking to specialize in **chemical engineering**. After browsing through your research about easy to use and equipment free biosensors, I became very interested in pursuing a research position in your lab. I believe that these sensors have the possibility to democratize health care, particularly through its application in testing of diseases such as malaria. This is work that strongly aligns with my interests.

I have attached my resume which summarizes my skills and experiences. Including:

- Verbal communication skills developed through my involvement as a lifeguard and swim instructor
- Passion for humanitarian work as demonstrated while volunteering at the Good Shepherd Food Bank
- Leadership and pursuit of excellence, which were essential as a FIRST Robotics team member

I was hoping to set up a meeting to **discuss any paid or volunteer research opportunities you may have**. Please let me know what date and time work best with your busy schedule. Thank you for your time.

Kind regards,
Christopher Zhang

I have emailed professors. Now what?

"I have already hired my research assistants for next summer."

"Follow-up with me in January."

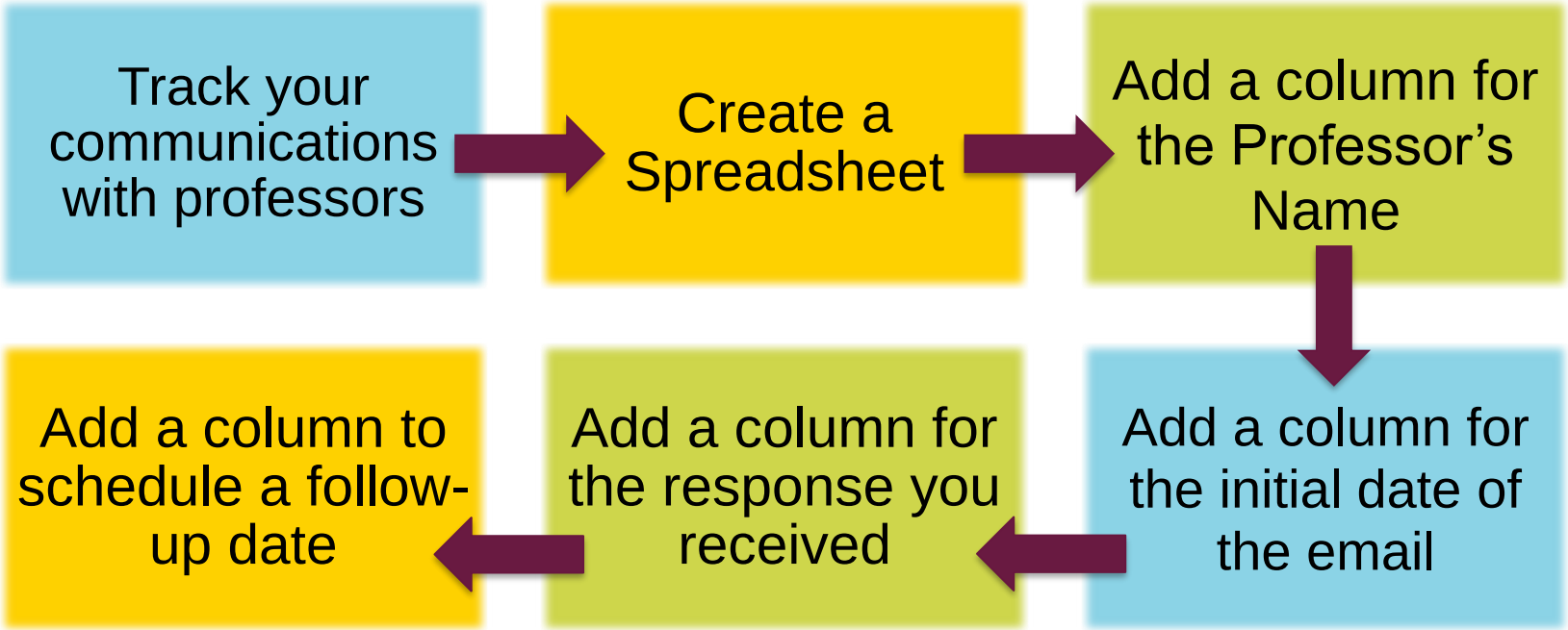
No response after 10 days.

"I would like to meet with you."

"Do you have any research grants or scholarships?"

"Do you qualify for work study?"

I have emailed professors. Now what?



Research Funding

Natural Sciences and Engineering Research Council of Canada (NSERC)

Would you like to receive **$6,000** in research funding?

Are you a student who has a **cumulative GPA of 10.0 (A-) or better** on the 12 point McMaster scale?

Apply for an NSERC Undergraduate Student Research Award (USRA)!

Application deadline → **Friday, February 5th, 2021**

For more information, follow this link: **https://tinyurl.com/zayul2l**

Other Funding

Being a “work study” student means part of your research assistant wage is **subsidized by the government**.

For more information about applying for work study, contact the **McMaster Office of the Registrar** registrar.mcmaster.ca/aid-awards//work-program/

Work Study

Some (not all) professors prefer research assistants who are **work study eligible**.

1. Log onto **Mosaic**
2. Click **Career Opportunities**
3. Select **Student Work Program**

More than Research!

All Research Assistants will be part of **15 weeks of career, professional development, and social events**

Undergraduate researchers at the annual Summer Research Poster Showcase

Join MacSER!

McMaster Society for Engineering Research (MacSER)

Our 4 Pillars

- Build a strong community amongst researchers
- Educate students on available research funding
- Increase awareness of research opportunities
- Provide career & professional development opportunities for summer researchers

https://www.eng.mcmaster.ca/research/podcast-big-ideas-changing-world-0