2022 Undergraduate Summer Research Information Session USRA and LURA
Information session and contacts

Information sessions
- January 25, 2022 - 9 am - 10 am - https://yorku.zoom.us/j/99349619080
- February 2, 2022 - 6 pm - 7 pm - https://yorku.zoom.us/j/91483907990
- February 10, 2022 - 2 pm - 3 pm - https://yorku.zoom.us/j/93884707194

Drop-In sessions – Zoom link on lassonedeundergraduateresearch.com
- February 11, 2022 – 12:30 pm – 2:30 pm
- February 18, 2022 – 12:30 pm – 1:30 pm

Contact
- James Li (Research Officer) – jamesli@yorku.ca
- General email – resday@yorku.ca
The experience was nothing short of phenomenal; my supervisor was able to piece together a virtual, collaborative environment between myself and the other summer researchers.

Four months of working alongside a team and being able to play off each other's strengths, allowed for me to put together a cohesive body of work in time for the end-of-summer research conference.

I loved this experience so much that I decided to propel my project forward during the 20/21 academic year as a LURA student!

- Rashiq Shahad, Mechanical Engineering student supervised by Cuiying Jian
What are these awards?

**NSERC USRA**
- Natural Science and Engineering Research Council of Canada Undergraduate Student Research Award
  - Lassonde School of Engineering has a quota of 18 awards, York U has 48 in total

**YorkU LURA**
- Lassonde Undergraduate Research Award
  - Lassonde School of Engineering has 45 awards available

You only need to submit one application for both awards!

Apply on Fluid Review -
https://apply.lassonde.yorku.ca/prog/lura_usra_competition_2022

February 21, 2022
Where can I find more information?

Lassonde Undergraduate Research
▶ http://lassondeundergraduateresearch.com/

Lassonde School of Engineering (to find more potential Professors and areas of research)
▶ https://lassonde.yorku.ca/
▶ Can access department sites via “Departments” tab

NSERC USRA
What are these awards?

What do I do?

They awards provide students a stipend of $10,000 to work with a professor for **16 weeks** on a summer research project.

**Why would I do summer research?**

- Explore research
- Gain hands-on experience and develop new skills
- Learn about graduate school
- Establish relationships with professors and students
- Build your resume and get job experience related to your major
What are these awards?

End of year presentation

All students are required to present at the annual Lassonde Undergraduate Research Conference -

In 2019...

Oral Presentations

Poster Presentations
What are these awards?

End of year presentation

▷ All students are required to present at the annual Lassonde Undergraduate Research Conference —
  • In 2020 and 2021 [https://yuevents.easyvirtualfair.com/](https://yuevents.easyvirtualfair.com/)

*In 2020 and 2021...*
I am interested in applying, am I eligible?
Eligibility criteria – NSERC USRA

To be eligible to apply for an award, you must

› be a Canadian citizen or permanent resident of Canada as of the deadline date for applications at the institution
› be registered, as of the deadline date for applications at the institution, in a bachelor's degree program at an eligible institution
› have obtained, over the previous years of study, a “B” cumulative average

In addition...

› if you already hold a bachelor's degree and are studying toward a second bachelor's degree, you may still apply for this award
› you may hold only one USRA per fiscal year (April 1 to March 31)
› you may hold a maximum of three USRAs throughout your undergraduate university career
Eligibility criteria – NSERC USRA

To hold an award, you must

▷ have completed all the course requirements of at least the first year of university study (or two academic terms) of your bachelor's degree

▷ have been registered at the time of application and in at least one of the two terms immediately before holding the award in a bachelor's degree program at an eligible institution

▷ not have started a program of graduate studies in the natural sciences or engineering at any time

▷ be engaged on a full-time basis in research and development activities in the natural sciences or engineering during the tenure of the award
Eligibility criteria – LURA

To apply you must:

- Be a Canadian citizen, permanent resident of Canada, or an International Student
- All full-time undergraduate students who meet the requirements for the project (as determined by professors)
- 1 year completed by the time of the award is preferred
- Students may not enroll in more than 3-course credits during the tenure of the award. Applicants are encouraged to discuss this with the potential supervisor.
Lassonde Co-op

Both USRA and LURA can count as Co-op for eligible students

Contact the Co-op office for more information
▷ Marily Molina – marily.molina@Lassonde.yorku.ca
▷ Mayolyn Dagsi – dagsi@yorku.ca

More information about Co-op can be found on their website
▷ https://coop.lassonde.yorku.ca/
How do I apply?
What are the application steps?

1) Find a professor and a project
   - Project Postings – Visit our website to see ~70 positions posted
     - http://lassondeundergraduateresearch.com
   - Search professors from the Lassonde School of Engineering website

2) Contact supervisor and get their endorsement
   - Deadline for professors to confirm support is February 16, 2022
   - Supervisor Endorsement Form signed

3) Submit the application online
   - Deadline is February 21, 2022
   - Instructions  http://lassondeundergraduateresearch.com
   - Use FluidReview - https://apply.lassonde.yorku.ca/prog/lura_usra_competition_2022
Competition details, guidelines, and instructions

1) lassondeundergraduatereasearch.com

**Background on LURA and USRA**

**Award Value and Duration**

**Important Dates and Deadlines**

- Jan 17, 2022: Competition Opened
- Jan 25, 2022 9am - 10am: Information Session [Link](https://zoom.us/j/99329651909)
- Feb 2, 2022 6pm - 7pm: Information Session [Link](https://zoom.us/j/91480907990)
- Feb 10, 2022 2pm - 3pm: Information Session [Link](https://zoom.us/j/93887071293)
- Feb 16, 2022: Last day for professors to decide which student(s) to support
- Feb 21, 2022: Application Deadline
- Late March: Awards will be announced

**How to Apply**

**Eligibility**
1) lassondeundergraduateresearch.com

Bottom Section: Project postings

Browse Projects:

Civil Engineering
Earth and Space Science and Engineering
Electrical Engineering & Computer Science
Mechanical Engineering
BEST Lab

APPLY NOW
HAVE A QUESTION?
Star Tracker Design for Space Object Tracking

Professor: Regina Lee
Lab Website: https://nanosatellite.lab.yorku.ca/

Position Type: Lassonde Undergraduate Research Award (LURA); NSERC Undergraduate Student Research Award (USRA);
Open Positions: 2

Project Description: Main research objective is to design and characterize a camera payload for upcoming CSA Stratospheric balloon mission (2022 launch) to demonstrate Resident Space Object (RSO) detection using a low-resolution camera. LURA or USRA students will assist in the final testing, assembly and operation of the payload for 2022 August launch and prepare for the post-launch data process.

Duties and Responsibilities: Each RA will be responsible for a series of functional test of the payload (long-form functional, thermal cycling, battery life, etc.) to demonstrate the full functionality of the payload. (S)he will also develop an algorithm to process on-orbit data to detect and characterize objects in space. the team will work closely with Magellan (Industry sponsor) and DRDC (government research partners) to further develop infrastructure (a network of small satellites equipped with proposed payload) to provide security and sustainability in operations in space environment.

Work Setting: Project work is carried out on campus, but can be shifted to remote work if necessary

Desired Technical Skills: Programming (Phython and MATLAB preferred), working knowledge in embedded system, CAD skills

Desired Course(s): Space, Computer, Electrical or Mechanical

Other Desired Qualifications: N/A

Contact Info: Prof. Regina Lee (REGINAL@yorku.ca)
1) Search for a project on Lassonde’s website
2) Get supervisor’s endorsement and a signed form

- A supervisor must endorse you for a position **prior to submitting on FluidReview**!

- Fill out Supervisor Endorsement Form and have it signed

- This also means you will have to reach out to a professor to convey your interest in working for them prior to making a submissions.
2) Get supervisor’s endorsement and a signed form

• Proper email communications with the professor is critical.
• Email etiquette
• Suggest to attach your resume and unofficial transcript, or at have it ready at this stage
• Can reach out to 2 or 3 professors, but remember you can only obtain submit one endorsement form (i.e. choose one project)
What documents do I need to apply?

Fluid Review

▷ Contact details

▷ Self-Identification survey (optional)

Supervisor Endorsement Form

Resume (2 pg. max)

Research Interest Statement (1 pg.)

Transcript
3) How to I submit my application?

FluidReview

- Register for an account - [https://apply.lassonde.yorku.ca/prog/lura_usra_competition_2022](https://apply.lassonde.yorku.ca/prog/lura_usra_competition_2022)
- Start application to “LURA USRA Competition 2022”
- Upload all documents to FluidReview
  - General Information
    - Contact Details
    - Self-Identification Form (Voluntary)
  - Supervisor Endorsement Form
  - Research Interest Statement
  - Resume
  - Transcript
What documents do I need to apply?

Supervisor Endorsement Form
- Each professor will fill out and sign this form for every student

Quality of the training environment
- Professors will complete this to identify your proposed training, mentorship/supervision, activities, technical skills, and other aspects.

NSERC forms 202 will not be used at this stage
- Students and supervisors awarded an NSERC USRA will be asked to fill out NSERC forms at a later stage.
What documents do I need to apply?

Resume
▶ Contact information
▶ Education
  • High school, college, university
▶ Work experience
▶ Volunteer experience
▶ Skills
  • Link to the project; Add anything unique!
▶ Clubs, activities, roles
▶ Awards
▶ Publications or posters

Tips!
- Highlight your research and/or academic achievement
- Consider highlighting how you used ‘soft skills’ in your non-research work experience (e.g. communication, teamwork, flexibility, etc).
- Check spelling and grammar
What documents do I need to apply?

Research Interest Statement (1 pg.)

- Past experience (laboratory or course-related)
- Skills you bring to the project
- Why you are interested in the project or topic, working with the professor, and/or research in general
- What you plan to learn from the experience
- Future plans

Tips!
- Avoid repeating your resume
- Try to use formal language
- Check spelling and grammar
What documents do I need to apply?

Transcripts

> **All students** must upload unofficial transcripts

> **Non-York students** also need to provide official transcripts to the Lassonde School of Engineering Dean’s Office
  
  - Consult with the Registrar’s Office at your institution for ordering options
  
  - Contact James Li ([jamesli@yorku.ca](mailto:jamesli@yorku.ca)) for more information

Students Awarded a USRA

> Students awarded an NSERC USRA will need to provide official transcripts to NSERC at a later date.
How will my application be assessed?

Applications will be reviewed by professors within each department as well as a selection committee.

Criteria include:
- GPA – 60%
- Research Potential – 30%
- Communication – 10%

Results will be sent by end of March
- Accept or Reject within 2 weeks
Applying to another Faculty?

Many faculties at York University (or elsewhere) host NSERC USRA or other summer research students

Contacts

▷ Faculty of Science
  • Stefanie Bernaudo – sbr@yorku.ca

▷ Faculty of Health
  • Tasnuva Hasan – hasant@yorku.ca
Information session and contacts

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