



NSERC Discovery Grants Program

2025 Workshop Series

Moderator:

Esther Ekpe Adewuyi, PhD

Research Facilitator (Natural Sciences)

Oki & Welcome

Date	Content	Facilitator
May 14	NOI & CCV	Dr. Stacey Wetmore (University of Lethbridge)
June 5	Excellence of Researcher	Dr. Stacey Wetmore (University of Lethbridge)
June 13	Merit of Proposal	Dr. Marc Roussel, Dr. Trushar Patel (University of Lethbridge)
June 20	Training of HQP	Dr. Marc Roussel, Dr. Trushar Patel (University of Lethbridge)
Jul 14	EDI in NSERC DG	Dr. Christina Bottaro (Memorial University) Dr. Christopher Rowley (Carleton University)

This session will be recorded.
Please mute your audio.

University of
Lethbridge



Writing Equity, Diversity & Inclusion Sections on NSERC Discovery Grants

Introductions

Panelists



Christina Bottaro
Professor, Dept of Chemistry
Memorial University of
Newfoundland



Christopher Rowley
Associate Professor,
Dept. of Chemistry
Carleton University

Writing Equity Diversity and Inclusion Sections on NSERC Discovery Grants



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Overview

- Discovery Grant EDI requirements overview
- Tips on considering audience, language and tone
- Examples of effective EDI statements
- Q&A periods

Virtual Attendees – Webinar Rules

- Please remain on mute and indicate you have a question with the Raise Hand function.
- If preferred, please type questions in the Q&A.

Equity, Diversity, and Inclusion (EDI) Requirements in NSERC Discovery Grants

- Excellence of the Researcher
 - Applicants are asked to describe past contributions to the promotion of equity, diversity and inclusion in the research enterprise (if applicable).
- Merit of the Proposal
 - Applicants are expected to describe consideration of sex, gender and diversity in the research design
- Training of highly qualified personnel (HQP)
 - Applicants are required to describe EDI considerations in their future approaches to recruitment, training and mentoring.
 - Applicants are asked to describe specific actions implemented in support of EDI in their past training of HQP (if applicable).

EDI is given most consideration in “Training of HQP” rating.

The HQP Section

The HQP section of your grant proposal is structured in two parts

1. HQP Training Plan

- **Training Philosophy:** EDI goes here plus other training philosophies*
- Research Training Plan for Individual HQP

2. Past Contributions to HQP Training

- **HQP Training Environment:** EDI goes here plus other training environment aspects*
- HQP Awards and Contributions
- HQP Outcomes and Skills

Some applicants discuss EDI in great detail but don't have enough space for philosophy and training plan. It is important to be balanced.

Members use a rubric sheet that looks like this

Contributions to the training of highly qualified personnel		<input type="checkbox"/> Exceptional	<input type="checkbox"/> Outstanding	<input type="checkbox"/> Very Strong
		<input type="checkbox"/> Strong	<input type="checkbox"/> Moderate	<input type="checkbox"/> Insufficient
Past Training of HQP	<ul style="list-style-type: none"> Quality and impact of past training Training environment HQP awards and research contributions Outcomes and skills gained by HQP 	<p>Rationale for rating:</p> <p>EDI statements should be included in <u>two areas</u></p>		
HQP Training Plan	<ul style="list-style-type: none"> Quality, suitability and clarity of the planned training Training philosophy <ul style="list-style-type: none"> Mentorship approach and enhancement of the research and training environment Challenges or barriers to inclusion and advancement of under-represented groups Planned approach to promote participation of a diverse group of HQP Research training plan for individual HQP 			

HQP Training Plan: Training Philosophy

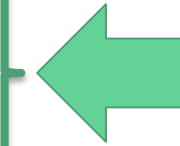
- A qualitative description of existing challenges or barriers to the inclusion and advancement of under-represented groups in the NSE, which are specific to the context (field, institution & lab) of the applicant's program of research:
- An inclusive research environment exists where all people are respected and have access to the same opportunities, where all individuals can reach their full potential, unimpeded by inequitable practices;
- Barriers to participation can be physical, procedural, visible, invisible, unintentional or other;
- Context specific to the applicant's program of research can relate to the field of research (e.g. extended periods of travel, field work requirement or others) or aspects related to the institution (e.g. geographic region in Canada, urban center or remote location, department size, type of degrees granted or others);
- The planned approach to promoting the participation of a diverse group of HQP, taking into account equity and inclusion in recruitment practices, mentorship approaches and initiatives aimed at ensuring an inclusive research and training environment and trainee growth.

Past Contribution to HQP Training: Training Environment

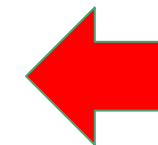
- The research training and development opportunities provided for HQP can include but are not limited to:
 - Participation and involvement of HQP in science outreach activities, interdisciplinary research, promoting EDI in the NSE, collaborations, and/or interactions with the private and public sector
- If applicable, considerations of EDI in the training environment, can include, but is not limited to:
 - Discussion of challenges or barriers encountered in ensuring an inclusive research training environment;
 - A qualitative description of specific actions implemented to support equity and inclusion in recruitment practices, mentorship approaches, and initiatives aimed at ensuring an inclusive research and training environment and trainee growth

HQP EDI Merit Indicator Grid Criteria

Outstanding	<ul style="list-style-type: none"> Challenges related to equity, diversity and inclusion specific to the institution and field of research are clearly described. Specific actions to support the recruitment of a diverse group of HQP and an inclusive research training environment are clearly defined.
Very Strong	<ul style="list-style-type: none"> Challenges related to equity, diversity and inclusion specific to the institution and field of research are described. Specific actions to support the recruitment of a diverse group of HQP and an inclusive research training environment are defined
Strong	<ul style="list-style-type: none"> Challenges related to equity, diversity and inclusion specific to the institution and/or field of research are described. Specific actions to support the recruitment of a diverse group of HQP and/or an inclusive research training environment are defined.
Moderate	<ul style="list-style-type: none"> Challenges related to equity, diversity and inclusion specific to the institution and/or field of research are partially described. Specific actions to support the recruitment of a diverse group of HQP and/or an inclusive research training environment are partially defined.
Insufficient	<ul style="list-style-type: none"> Challenges related to equity, diversity and inclusion specific to the institution and/or field of research are inaccurate or not described. Specific actions to support the recruitment of a diverse group of HQP and/or an inclusive research training environment are not appropriate or not defined



Satisfy all these points explicitly and convincingly



Lack of EDI considerations could contribute to an "I" score (unfunded)

Before You Write, Consider Your Audience

- NSERC recruits researchers to serve as panel members in an “evaluation group.”
 - Membership balanced by region, size of institution, gender.
 - 90% are Canadian professors holding discovery grants.
 - Members review ~40–50 applications every December–February.
 - Meet in real-time for 3–4 days in February to rate applications.
- Each application is discussed for exactly 15 minutes.
 - Entire application – including EDI sections – are reviewed by the same panel members.
 - EDI section discussed for each proposal, but only for 30–60 seconds.
- Every component of proposal must be clear and direct.
 - Aim for “easy reading.”
 - Members may not be deeply familiar with EDI terminology and theory; use NSERC’s terms
 - https://www.nserc-crsng.gc.ca/InterAgency-Interorganismes/EDI-EDI/index_eng.asp
 - Clear, definite statements that can be communicated easily



Topics Everyone Can Address

Groups of people

- Women
- Black and racialized
- Indigenous
- 2SLGBTQI+
- Disabilities, including mental health
- Parents
- Economically disenfranchised

Challenges to Recruiting/Retaining/Advancing

- Facilities
- Work conditions
- Financial challenges
- Work-life balance
- Harassment

Actions

- Change procedures to remove barriers or state existing effective procedures
 - institutional leave policies, limit work hours, weekends, field work, travel, sufficient pay...
- Actively recruit, retain, and support
- Provide opportunities (e.g., mentorship), support career after graduation

Make Sure Your Terminology is Current

- Some terms used in research have been reassessed; make sure your terminology is current
- Men/women vs male/female
 - Sex refers to biological attributes. Primarily associated with physical and physiological features
 - Gender refers to the socially constructed roles, behaviours, expressions and identities of girls, women, boys, men, and gender diverse people.

Old Terminology

We will use a distributed computing approach with a master/slave architecture.

To retain more female graduate students in our group, we have implemented anti-harassment policies.

New Terminology

We will use a distributed computing approach with a primary/secondary architecture.

To retain more graduate students who are women in our group, we have implemented anti-harassment policies.

Structure

- EDI plans should explicitly address: recruiting, inclusive research environment, EDI challenges in institution and field
 - Identify groups affected
 - State challenge/barrier to their inclusion
 - Propose specific actions to address each of them
- Use space efficiently; actions can apply to multiple challenges/groups

Outstanding	<ul style="list-style-type: none"> ● Challenges related to equity, diversity and inclusion specific to the institution and field of research are clearly described. ● Specific actions to support the recruitment of a diverse group of HQP and an inclusive research training environment are clearly defined.
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Recruitment

Group	Indigenous
Challenge/Barrier	Lack of engagement
Action	Outreach events

Inclusive Training Environment

Group	2SLGBTQI+
Challenge/Barrier	Harassment
Action	Anti-harassment training

Institution

Group	Physically disabled
Challenge/Barrier	Inaccessible workspace
Action	Renovated workspace

Field

Group	Women
Challenge/Barrier	Exposure to teratogens
Action	New equipment and protocols to eliminate exposure



Effective EDI statements need **context** and **action**

Context – Clearly described

Barrier and its effect identified

Specific Actions – Clearly defined

The low levels of inclusion of women the foremost EDI challenge in the field of theoretical chemistry. My experience is that students will only consider graduate studies in a field if they are engaged and encouraged in the subject early in their undergraduate program, and the lack of engagement of theoretical chemists with this group has been a barrier to inclusion. To address this, I will hold annual laboratory tours for our local chapter of Women and Science and Engineering and encourage interested students to hold NSERC USRAs in our group.

General Principles

- EG members are not allowed to surmise your EDI record based on HQP names on your CV. You are not expected or encouraged to include demographics
- The EG panel will not discuss if your past recruiting record is good or bad; focus on the next five years rather than defending your record
- It's fine if you don't have an established research group; you're describing what you will do
- Funding is competitive and many top researchers are taking EDI very seriously
 - Expectations are high; proposing substantial, innovative, original actions is now expected
- NSERC DGs have no reporting requirements – propose ambitious EDI ideas even if you might not succeed in implementing them in your next 5 years (ambitious, aspirational goals, like your research proposal)
- Tangible actions to support EDI can count towards excellence of researcher / HQP
 - e.g., disciplinary or national committees related to EDI, institutional actions related to EDI in research
- Personal narrative could be helpful to describe how your training plan/philosophy/EDI has evolved, but it's not essential and may not be an effective use of space
- Discussing identity of applicant is forbidden; it's difficult for committee to discuss EDI plans built around identity of applicant
- Use your first-hand observations and experiences to write a statement specific to your context

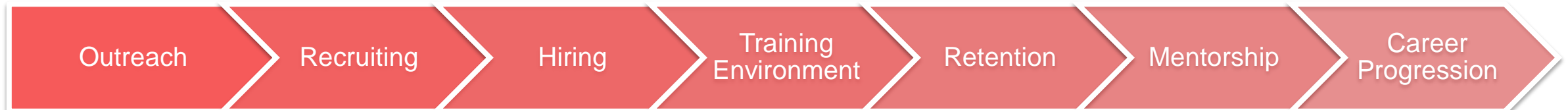
Examples

The following are based on EDI statements in DG's

Your statement should be specific to your context, consistent with the rest of your proposal. The challenges and barriers should be identified from your own observations and experiences. The actions should be feasible using your own resources and effective in your environment.

Every EG member will interpret the EDI requirements in a different way and will react to your proposal differently

Topics to Address



Tone

Well Received

- Positive
- Constructive
- Open-minded
- Thoughtful
- Practical
- Considerate
- Attentive
- Reasonable
- Fair

Poorly Received

- Defensive
- Defiant / Contrarian / Angry
- Disinterested / Perfunctory / Generic
- Self-righteous / Dramatic
- Tone-deaf
- Impractical
- Out of touch with reality
- Insensitive / Punitive

Supervisors who seem invested and concerned about the success of their students do better on their HQP ranking.

Approach your EDI section like you would the proposal: think about it, do a literature review, think of insightful and innovative ideas, get feedback from other people, edit it carefully.

It's hard to judge how your tone will be perceived. Get feedback from colleagues.

Indigenous Issues

- Visits to indigenous schools and communities
- Campus visits by youth
- Paid research assistant positions for indigenous students
- Interaction with community leaders
- Science fair projects
- Research that engages indigenous communities
- Advertising positions in campus indigenous spaces
- Training on indigenous issues for you and your students/staff
- Representation through indigenous art and names
- Seminars by indigenous scientists
- Training for students about indigenous issues in your field
- Engagement with campus indigenous resources

Note: Any mention of specific indigenous groups should only be included with their permission.

Most of these initiatives will require an established relationship with an indigenous group or existing campus initiatives.



Engaging Indigenous Students

Suggested Activities	Challenges	Proposed Actions	Campus Resources
Recruitment			
Showcase your research at Indigenous schools/communities.	Liaisons are required for the researcher-community connection.	Engage the University's indigenous resources and programs.	Indigenous Services Office Team https://www.ulethbridge.ca/indigenous/meet-indigenous-services-team
Encourage Indigenous youth to visit the campus/your lab.		Consult with campus advisors.	
Advertise research positions in campus indigenous spaces.			
Create visibility opportunities for Indigenous students in research through institutional, provincial, or national events. "Role modeling" and "word of mouth" are effective recruitment tools in the Indigenous community.			Indigenous Student Recruitment Officer https://www.ulethbridge.ca/future-student/our-recruitment-team
Seek co-supervision with Indigenous Faculty.	Limited number of Indigenous Faculty in NSE research.	Whenever possible, seek co-supervision from Indigenous colleagues at other institutions who have expertise/knowledge in the subject area.	Indigenous Summer Research Academy https://www.ulethbridge.ca/destination-exploration/insra
Retention			
Recognize the uniqueness of Indigenous trainees.	They often have greater responsibilities outside of research due to factors such as: <ul style="list-style-type: none"> extended family living arrangements the prevalence of adult and mature learners 	Promote a culture of retention by offering flexible work environments/schedules that accommodate the family life needs of adult trainees and the additional commitments that come with a community-based lifestyle.	Estimated Living Costs https://www.ulethbridge.ca/future-student/graduate-studies/estimated-costs
		Ensure that funding includes coverage for sufficient living expenses.	Indigenous Research Engagement https://www.ulethbridge.ca/research/grants/in-digenous-research-engagement

Missteps: Dismissive and Perfunctory

I acknowledge there are issues with diversity in the sciences due to lack of role models, etc. Graduate and postdoctoral positions in my group are open to anyone who wants to apply, regardless of their race, sex, etc. and I hire the most qualified people exclusively based on their talent and passion for organic synthesis.

Identifies challenge?

Not really

Action to address challenge?

Not really

Tone

Unserious. Generic.

Missteps: Broad Political Statements

I am a true advocate for greater inclusion of women and visible minorities in the sciences. I am committed to serving as an ally to these communities to improve equity in my discipline. STEM has excluded BIPOC for too long and I will make it my mission to center their voices and be an anti-racist force in the sciences.

Identifies challenge?

Not specifically

Action to address challenge?

Not specifically

Tone

Passionate, but grandiose and vague

Support for International Student Integration

Many of my graduate students come to Lethbridge from abroad. Finding affordable housing and their integration in the community has been a challenge to retaining them in their programs. I send resources for on and off campus housing resources to newly-admitted students and work with them to find housing by viewing prospective apartments for them. We have a welcome lunch for them with the whole group so they can build connections and feel included. Each year, I hire local work-study to tutor my international students in written and spoken English. These practices have helped my students secure affordable living conditions and integrate with the university and wider community, so I will continue these practices over the next 5 years.

Identifies challenge?	Yes, specific
Plan to address challenge?	Yes, specific
Tone	Supportive, welcoming, empathetic

Action to Recruit Underrepresented Students

There have been an insufficient number of qualified applicants from underrepresented groups (i.e., women, indigenous, and racialized) at my institution to achieve an appropriate level of diversity in my research group. Role-models, engagement, and encouragement are crucial for these students to see themselves in careers as research biologists, so I work with our student societies to organize annual information sessions for undergraduate students, where a diverse set of faculty members present their research and provide information about opportunities to work as undergraduate researchers. We send invitations directly to all students enrolled in B.Sc. programs, as well as campus organizations serving underrepresented groups. This has been effective in increasing the number of applicants from these groups as USRAs and I am optimistic this will lead to increase in the number of graduate applicants.

Identifies challenge?	Yes, specific
Plan to address challenge?	Yes, specific
Tone	Concerned, positive, engaged, taking action

Addressing Challenges in the Work Environment

Our research in biological science often requires students to wear safety equipment that was designed for men and is not ergonomic or even fully functional for women. This creates a barrier to the recruiting and retention of women at our institution and for their long-term retention in the field. In my group, we will only purchase equipment that is equally functional for men and women or is custom fit for the wearer, creating a more inclusive research environment.

Identifies challenge?	Yes, specific
Plan to address challenge?	Yes, specific
Tone	Considerate, closely involved in training and attentive to trainee experience

Addressing Issues in Career Progression

Many of my undergraduate students are the first in their families to attend university and are not familiar with graduate programs, which creates a barrier to their progression in my field and at our institution. I organize an annual information session to inform students about research opportunities, including graduate program requirements, funding, and institutions. These have been effective in recruiting students from broad backgrounds to participate in research and these students have often continued into graduate studies. 7 students in my group have continued into graduate studies in physics at UCalgary, UAlberta, and UBC. We will expand these sessions to be offered more frequently and include presentations by students who have been successful in finding their place in research.

Identifies challenge?	Yes, specific
Plan to address challenge?	Yes, specific
Tone	Insightful, forward-looking

Addressing Student Finances

Several students from economically disadvantaged backgrounds have told me they are reluctant to continue in graduate studies because the standard stipend was insufficient to support them and could not take on more student debt. This created a barrier to their inclusion in my institution. I worked with the university to establish a living-wage baseline funding level for all students and then pursue an NSERC Alliance grant with Rotamold Plastics so I could pay the higher research assistantship for all qualified students who wanted to pursue graduate studies in my group.

Identifies challenge?	Yes, specific
Plan to address challenge?	Yes, specific
Tone	Considerate, concrete, practical

Addressing Inclusion of Students with Disabilities

In experimental physics, students with physical disabilities face significant barriers due to the inaccessibility of laboratory equipment. Traditional lab benches and high-precision instruments often lack accommodations for wheelchair users and those with limited mobility or fine motor skills. Additionally, many of our instrument interfaces have small LCD displays are not functional for my students who have visual impairments. To address these barriers, our research group will procure adjustable-height workstations and instrument interfaces with full visual accessibility features. Our lab is also located on an accessible floor of the building and have worked with campus health and safety to ensure our safety protocols and exits are inclusive. By creating a more accessible lab environment, we aim to foster the full participation of students with physical disabilities in experimental physics research at Lethbridge, allowing these students to continue into careers in the field.

Identifies challenge?	Yes, specific
Plan to address challenge?	Yes, specific
Tone	Determined, supporting

Missteps: Watch Your Tone

Alternative: Avoid thorny subjects altogether

Problematic Version	Issue	Revised Version
<p>I am an excellent supervisor to female students; the female graduates from my group have been just as successful as the male graduates.</p>	<p>Patronizing, outdated tone. Conflates gender and sex.</p>	<p>My supervisory practices have been successful in building an environment that is more equitable for women; I am very proud that many women who have graduated from my group have had exceptionally successful careers.</p>
<p>Students who violate the group code of conduct will be expelled.</p>	<p>You do not have the authority to expel students summarily and the punitive tone is unsettling.</p>	<p>If the code of conduct is not followed, I will meet individually with HQP to reiterate the expectations and seek reconciliation.</p>
<p>I ask all trainees what their sexual orientation is and if they are transgendered so that I can ensure protections for them are in place.</p>	<p>It's creepy for a supervisor to demand very personal information from their students.</p>	<p>I give an annual presentation on my philosophy of supporting trainees with their EDI challenges, then meet with each new trainee individually to give them an opportunity to discuss the challenges they face and what support I can give them.</p>

Misstep: Including Demographics or Identifiable Data

- NSERC explicitly discourages applicants from including demographics of your group
 - High diversity in trainees does not automatically correspond a good score; your proposal is assessed by identification of challenges and proposed actions
- Aggregate data for discipline may be useful
- Specifically identifying students benefiting from EDI initiatives is also discouraged

NSERC Discovery Grant Review Manual

Important: trainee demographic data is not requested, nor required to assess impacts related to equity, diversity and inclusion in the research and training environment.

One former member of my group, Sierra Pan (formerly Steven), is neurodivergent, a visible-minority, and member of the 2SLGBTQI+ community. She withdrew from the PhD program during the pandemic because of her mental health, which explains our slow research output.

My group has an excellent record of diversity. 72% of my graduate students have been visible or sexual minorities and 63% have been women.

How did you collect this information? How were the questions worded? Did your students have a real choice in responding? What steps did you take to protect the privacy of HQP now and in the future? What does this prove anyway?

Valid Uses:

A study published in Phys. Rev. Phys. Educ. Res. found that 74% of women in physics had experienced some form of sexual harassment.

This is an extreme violation of a student's privacy for the benefit of the applicant's grant application. Even with their consent, it's crass.

Resources: Issues, Data, and Proposed Solutions

- Google “[your field] underrepresentation”
 - American Physical Society report and actions for increasing African-Americans in physics: www.aip.org/diversity-initiatives/team-up-task-force
 - American Physical Society report and actions: <https://www.aps.org/programs/lgbt/upload/LGBTClimateinPhysicsReport.pdf>
- Quantitative Reports and Prescriptive Strategies across disciplines:
 - AAUW: The STEM Gap: Women and Girls in Science, Technology, Engineering and Math <https://www.aauw.org/resources/research/the-stem-gap/>
 - PISA in Focus [Why Don't More Girls Choose to Pursue a Science Career?](#)
 - University of Georgia: [Recruit and Retain Diverse Students](#)
 - New Frontiers in Research Fund <https://www.sshrc-crsh.gc.ca/funding-financement/nfrf-fnfr/edi-eng.aspx>
 - https://www.chairs-chaires.gc.ca/program-programme/equity-equite/best_practices-pratiques_exemplaires-eng.aspx

Integrated EDI

- EDI can be mentioned throughout your proposal
- Both training plan and philosophy
- Short mentions in proposal
- Excellence of researcher
 - Engagement with organizations supporting EDI
- **Budget:**
 - extra costs associated with EDI policies
 - Participation in EDI events
 - Purchase of accessible equipment

Your Job Isn't Done When Your Grant is Submitted

- Monitor announcements by the University and NSERC regarding EDI policies.
- Keep EDI in mind; grants are easier to write if you've been active on these issues.
 - Work with your colleagues to take actions for advancing EDI
- Normalize talking about EDI with your colleagues
 - Read each other's proposals, give and accept criticism
 - Find a former EG member to review your grant
 - Good will and the benefit of the doubt - we all win if we're successful in our grant applications and EDI initiatives

University of Lethbridge Resources

University of Lethbridge Accessibility, Belonging and Community Office

<https://www.ulethbridge.ca/accessibility-belonging-community/resources>

Respect at ULethbridge - Program Overview

<https://uleth.sharepoint.com/sites/human-resources/SitePages/Respect-at-ULethbridge---Program-Overview.aspx>

Indigenous Services Office Team

<https://www.ulethbridge.ca/indigenous/meet-indigenous-services-team>

Indigenous Student Recruitment Officer

<https://www.ulethbridge.ca/future-student/our-recruitment-team>

Indigenous Summer Research Academy

<https://www.ulethbridge.ca/destination-exploration/insra>

Estimated Living Costs

<https://www.ulethbridge.ca/future-student/graduate-studies/estimated-costs>

<https://www.ulethbridge.ca/future-student/estimated-costs>

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HQP Salary Considerations - Uleth

- Undergraduates: minimum suggested stipend based on the [NSERC USRA Summer program](#)
 - \$8,730 for 16 weeks.
- Graduates: minimum salaries in the [ULGSA Collective Agreement \(page 36\)](#).
 - No maximum rates, researchers are encouraged to offer higher pay. Alternatively, funding support can be provided as a stipend at a competitive rate, which attracts highly qualified trainees.
- Postdocs: minimum salaries in the [ULPA Collective Agreement \(page 26\)](#):
 - Effective August 1, 2024: \$45,000
 - Effective July 1, 2025: \$46,000
 - Effective July 1, 2026: \$47,000(An additional 10% may be allocated towards benefits.)

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HQP Salary Considerations - National

- [GoC Budget 2024](#) - significant new investments in Canada's research ecosystem, including a planned increase in the annual value of scholarships and fellowships.
 - Master's - \$27K
 - Doctoral - \$40K
 - Postdoctoral - \$70K



QUESTIONS