Equity, Diversity and Inclusion Toolkit for
NSERC Discovery Grant Applications

Spring 2025

NSERC Discovery Grants

NSERC and all the Tri-Agencies have taken strong approaches to ensuring that the research environment is more equitable, diverse and inclusive.

"Applicants are expected to increase the inclusion and advancement of underrepresented groups in the natural sciences and engineering, as one means to enhance excellence in research and training."[1]

In general, Discovery Grant applications are expected to address EDI in their research training sections. More specifically, in the **Training of HQP** and under the **Training Philosophy** sections.

DISCOVERY GRANTS MERIT INDICATORS

The Merit Indicators should be used in conjunction with the Peer Review Manual, which outlines how reviewers arrive at a rating.

		EXCEPTIONAL	OUTSTANDING	VERY STRONG	STRONG	MODERATE	INSUFFICIENT
Excellence of the Researcher		Acknowledged as a **leader** in terms of research excellence, accomplishments, and service.	Research excellence, accomplishments, and service are **far superior** to others.	Research excellence, accomplishments, and service are **superior** to others.	Research excellence, accomplishments, and service are **significant**.	Research excellence, accomplishments, and service are **reasonable**.	Research excellence, accomplishments, and service are **below an acceptable level**.
		Contributions presented in the application are of the **highest level of quality**.	Contributions presented in the application are of **high quality**.	Contributions presented in the application are **above average in quality**.	Contributions presented in the application are of **good** quality.	Contributions presented in the application are of **reasonable** quality.	Contributions presented in the application are **limited** in quality.
		Impact and importance of the work is **clearly evident** and **groundbreaking**.	Impact and importance of the work is **clearly evident** and **influential**.	Impact and importance of the work is **clearly evident**.	Impact and importance of the work is **evident**.	Impact and importance of the work is **somewhat evident**.	Impact and importance of the work is **not clearly evident**.
Merit of the Proposal		Proposed research program is clearly presented, is **extremely original** and **innovative** and is **likely to have impact** by **leading to groundbreaking advances** in the area and/or **leading to a technology or policy** that addresses socio-economic or environmental needs.	Proposed research program is clearly presented, is **highly original** and **innovative** and is **likely to have impact** by **contributing to groundbreaking advances** in the area, and/or **leading to a technology or policy** that addresses socio-economic or environmental needs.	Proposed research program is clearly presented, is **original** and **innovative** and **is likely to have impact by leading to advancements** and/or addressing socio-economic or environmental needs.	Proposed research program is clearly presented, is **original** and **innovative** and is **likely to have impact** and/or address socio-economic or environmental needs.	Proposed research program is clearly presented, has **original** and **innovative aspects** and **may have impact** and/or address socio-economic or environmental needs.	Proposed research program, as presented **lacks clarity**, and/or is of **limited originality** and **innovation**.
		Long-term vision and **short-term objectives** are **clearly defined**.	**Long-term goals** are **clearly defined** and **short-term objectives** are **well planned**.	**Long-term goals** are **defined** and **short-term objectives** are **planned**.	**Long-term goals** and **short-term objectives** are **clearly described**.	**Long-term** and **short-term objectives** are **described**.	**Objectives** are not clearly described and/or likely not attainable.
		The methodology is **clearly defined** and **appropriate**.	The methodology is **clearly described** and **appropriate**.		The methodology is **described** and **appropriate**.	The methodology is **partially described** and/or **appropriate**.	The methodology is **not clearly described** and/or **appropriate**.
		The application **clearly demonstrates** how the research activities to be supported are distinct from those funded (or applied for) by other sources.					The application **does not clearly demonstrate** how the research activities to be supported are distinct from those funded (or applied for) by other sources or does not clearly demonstrate a program of research in the NSE.
Training of Highly Qualified Personnel	**Past Training of HQP**	Past training is at **the highest level** in terms of the research training environment provided and HQP contributions to research.	Past training is **far superior** to other applicants in terms of research training environment provided and HQP contributions to research.	Past training is **superior** to other applicants in terms of the research training environment provided and HQP contributions to research.	Past training compares **favourably** with other applicants in terms of the research training environment provided and HQP contributions to research.	Past training is **modest** relative to other applicants in terms of the research training environment provided and HQP contributions to research.	Past training is **below an acceptable level** in terms of the research training environment provided and HQP contributions to research.
		Most HQP move on to **highly impactful** positions that require skills gained through the training received.	**Most HQP** move on to **impactful** positions that require skills gained through the training received.	HQP **generally** move on to **impactful** positions that require skills gained through the training received.	HQP **generally** move on to positions that require skills gained through the training received.	**Some HQP** move on to positions that require skills gained through the training received.	HQP **rarely** move on to positions that require skills gained through the training received.
	Training Philosophy & Research Training Plan	Training philosophy and research training plans are **of the highest quality**: highly appropriate, clearly defined and expected to produce **top quality** results in terms of the overall approach and specific projects for HQP.	Training philosophy and research training plans are **far superior**: highly appropriate, clearly defined and expected to produce **high quality** results in terms of the overall approach and specific projects for HQP.	Training philosophy and research training plans are **superior**: highly appropriate, clearly defined and expected to produce **quality** results in terms of the overall approach and specific projects for HQP.	Training philosophy and research training plans are **appropriate** and **clearly defined** in terms of the overall approach and specific projects for HQP.	Training philosophy and research training plans are **partially appropriate** and **partially defined** in terms of the overall approach and specific projects for HQP.	Training philosophy and research training plans are **not appropriate** and **not clearly defined** in terms of the overall approach and specific projects for HQP.
		Challenges related to equity, diversity and inclusion specific to the institution **and** field of research are **clearly described**.		Ch... ...related to equity, diversity...	Challenges related to equity, diversity...	Challenges related to equity, diversity...	Challenges related to equity, diversity... to the institution ...described. ...or not described.
		Specific actions to support the recruitment of a diverse group of HQP **and an** inclusive research training environment are **clearly defined**.	Specific actions to support the recruitment of a diverse group of HQP **and** ...inclusive research training...	Specific actions to support the recruitment of a diverse group of HQP **and/or** an inclusive research training...	Specific actions to support the recruitment of a diverse group of HQP **and/or** an inclusive research training...	Specific actions to support the recruitment of a diverse group of HQP **and/or** an inclusive research training...	Specific actions to supp... recruitment of a divers... **and/or** an inclusive res...

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[1] NSERC Discovery Grant Information Page
https://www.nserc-crsng.gc.ca/professors-professeurs/grants-subs/dgigp-psigp_eng.asp#a4

Training Philosophy: Creating & Showcasing an Inclusive Training Environment

In order to fully assist all research team members to reach their full potential, they must feel supported and integrated into the research environment. Facilitating inclusion in the research environment can look very different depending on the field and discipline of research.

In NSERC Discovery Grants, the Training Philosophy section is where you should include:
- A description of the barriers and challenges within your research field when it comes to EDI AND how you are working to combat them
- Actions that you are implementing in your research team to promote diverse HQP to participate in your research group, including those from equity deserving groups

Your training philosophy can include language about how you are combatting discrimination, biases, microaggressions, sexism, and racism within the research environment and on your research team. How you plan to recruit and train your HQP should showcase a full understanding of EDI best practices.

There are many instances where inclusion can be facilitated in research through accommodations. Accommodations are put in place for students in a variety of instances to reduce barriers so that students can reach their academic goals. Students with accommodations are expected to meet the same academic standards as their peers, however, the accommodations allow for a more fair academic environment for students with diverse needs. Each student is unique and will require an individualized approach to ensure that they have equitable access to research opportunities and experiences. Students are not required to disclose their disability to their PI or its group members, however, Lakehead's Student Accessibility Services office can help with providing and guiding faculty with reasonable accommodations for each student while understanding their specific circumstances.

Accommodations can be for many reasons, including but not limited to[2]:
- Family responsibilities
  - Taking care of elderly/sick relatives
  - Taking care of children
- Blindness/low vision
- Deaf or hard of hearing
- Mobility impairments
- Invisible disabilities
  - Learning disabilities (ADHD, OCD, etc.)
  - Mental health conditions (mood disorders, anxiety disorders, etc.)
  - Brain injuries
- Medical disabilities
  - May be visible or invisible (kidney disease, diabetes, etc.)

Creating an inclusive training environment can mean modifying the way in which the research is conducted in order to ensure accessibility for all on your research team. When providing accommodations in research, especially in the physical laboratory and fieldwork setting, faculty must assess the safety (both physical and mental) throughout the research process and work with their students to determine the most effective and productive manner in which to ensure the student meets their research objectives.

It is important for researchers to be innovative, imaginative and empathetic when working with students to determine new and more inclusive ways for conducting research.

Accommodations can make the entire research process more inclusive and allow all trainees to feel comfortable in the group.

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[2] Adapted from Lakehead University's Faculty Guide for Accommodating Students with Disabilities

Some examples of ways to enhance the research environment could include:
- Family responsibilities
    - Have alternative work arrangements in place in cases where students need to work remotely
    - Ensure that meetings are scheduled at times that are convenient for all group members and their responsibilities (ie. do not hold meetings after 5pm if a team member has to pick up their children)
- Blindness/low vision
    - Provide research documentation in alternative formats that are legible by screen reader programs and provide these materials ahead of time
    - In group discussions, ensure that only one person speaks at a time
- Deaf or hard of hearing
    - Used closed captioning on videos and during virtual meetings
    - Eliminate background noise and other distractions in meetings
- Mobility impairments
    - Ensure that research environments are accessible as best as possible
    - Remove all debris and clutter from the research space to allow for easier movement
- Invisible disabilities
    - Provide research materials in alternative formats and record group meetings for students to review
    - Use universal design and alternative forms of demonstrating key research concepts in meetings that appeal to diverse learners
- Medical disabilities
    - Record the meetings for students in case they miss a class for medical reasons
    - Work with the disability support office to ensure that the student has a positive research experience

In cases where students need to partake in fieldwork or laboratory work and require accommodations, please work with the Student Accessibility Services office to ensure that the student can complete their research work while having the necessary support in place to participate equitably. You can also reach out to the Director of Human Rights and Equity for guidance on accommodations in specific situations.

An example scenario: A student with mobility impairments would like to participate in fieldwork with a biology researcher and work on their observational study of rodents. The student requires a wheelchair and the fieldwork that this researcher

engages with requires the research team to go to remote locations where the terrain is uneven. To accommodate this student, the researcher may choose to set up cameras to film the rodents instead of requiring the students to travel to the remote location. With the footage being recorded, any student, regardless of ability, would be able to equitably participate in the research process and could analyze the footage at the university without feeling isolated from the research team. This type of arrangement could also be beneficial for students with family responsibilities and are unable to leave the city for any length of time. Alternatively, the researcher may choose to pair students together and have one member of the pair travel to the remote location while the other remains on campus and performs other tasks for their joint research project.

In both scenarios, by making adjustments to the data collection process, the researcher is accommodating the student and fostering an inclusive environment for all students. Showcasing your innovative approach to creating an inclusive environment is essential for strong EDI-related HQP sections. While not all accommodations are possible to facilitate in every scenario, there are many innovative solutions that can be implemented to help students equitably participate in research.

The following are some questions to ask when incorporating inclusion in the training environment and when discussing your Training Philosophy in NSERC Discovery Grant Applications [3]:

- Do your team members understand the different types of microaggressions and how they can harm individuals? How can microaggressions be mitigated within your team?
- What policies are in place to address any complaints of team members in a confidential and effective manner?
- Is there a clear process for requesting accessibility and accommodations within your team?
- Have you referred to the [Faculty Guide for Accommodating Students with Disabilities](#)?
- Are all team events and meetings considerate of accommodation and accessibility needs?
- Are team meetings inclusive?
- Have you taken a universal design approach to how you instruct trainees?
  - Consider learning more about universal design through the [Lakehead University Teaching Commons](#)

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[3] Partially adapted from the [New Frontiers Research Fund Best Practices for EDI in Research Practice and Design](#)

The following recommendations are some ideas for what to include when describing how you promote inclusion within your research team and within the Training Philosophy section of your NSERC Discovery Grant Application:

- Describe both the barriers/challenges to inclusion for those from EDGs within your field/specific area of research AND how you are addressing them with your specific approach to training
- Describe how you recruit trainees. Are you using gender neutral language when posting for positions? Do you advertise widely to all students who may be interested in joining your team?
- Describe how you select the students who join your team. Do you use predetermined criteria for assessing all applicants equitably? Do you take into consideration diverse experiences?
- Describe concrete practices you are employing within your group to ensure equity, diversity and inclusion are upheld
- Describe your approach to mentorship by highlighting EDI best practices
  - Ex. Do you hold regular meetings with each student individually to work with them for the best approach to meet their research objectives?
- Hold regular meetings with members of the team to openly discuss the team environment and collectively develop a plan to address confidential concerns
- Consider requiring that all members of the research team responsible for hiring take unconscious bias training from the Tri-Agencies and EDI training for research offered by the Office of Research Services
- Ensure your team understands microaggressions and work towards creating a supportive and respectful research environment for all team members

STEM Specific Resources:
- Ten Steps to Equity: Making Fieldwork Accessible (Alexis-Martin, 2023)(Published in Times Higher Education)
- Fieldwork and disability: an overview for an inclusive experience (Chiarella and Vurro, 2020)
- Creating Spaces for Geoscientists with Disabilities to Thrive (Marshall and Thatcher, 2019)
- Webinar: American Geosciences Institute: Accessibility and Inclusivity for Students with Disabilities (2020)
- NSERC Guide for Integrating EDI Considerations in Research
- NSERC Guidelines on the assessment of contributions to research, training and mentoring

Useful Resources:
- [GBA+ Gender-Based Analysis Plus](#) Training
- [Better science with sex and gender: SGBA+ in Health Research](#) [2017 Report on Women in Science and Engineering in Canada](#)
- [Link to Lakehead's EDI in Research Training Web Pages](#)
- [Policies and Procedures of the Office of Human Rights and Equity at Lakehead University](#)
- [Lakehead University Indigenous Research Resources webpage](#)
- [Lakehead University Office of Research Services webpage](#)
- [Lakehead University Student Accessibility Services webpage](#)

Training of HQP: Distributing and Incorporating EDI in Research Training

When it comes to thinking about EDI and potential training opportunities, it is important to ensure that EDI principles are incorporated in order to ensure that all opportunities are equitably accessible for all trainees. It is essential that the working environment is safe and respectful.

It is also vital for trainees to have equitable access to professional development opportunities, such as networking, conferences, and publications. Trainees, such as graduate and undergraduate students and postdoctoral fellows, should have the opportunity to both participate and lead (when appropriate) research projects in an inclusive and supportive environment.

Trainees should also be provided with individualized training plans in addition to regular supportive supervision and meaningful mentorship.

The following are some questions to ask when incorporating EDI in the Training of HQP section of your NSERC Discovery Grant [4]:

- How are trainees kept on track? And do they have equitable access to the PI and senior research team members?
- Have you included training and professional development opportunities for junior research team members in your research proposal?
  - Ex. Have you allocated funds for junior research team members/HQP to attend conferences?
- Have you identified policies and practices to ensure that team members from EDGs are supported and integrated into the team?
- Have you, as the project leader, and the research team members, taken EDI training, such as anti-racism, unconscious bias, etc.?
- Have you included professional development opportunities for your trainees outside of your direct supervision?
  - Ex. Attending on-campus workshops or doing online training such as the courses available through LinkedIn Learning?
- Do you equitably distribute opportunities for training and development to all trainees?
- Are there formal mentoring opportunities for those within the team? Are they equitably distributed?

The following are recommendations for steps you can take to promote EDI in the training environment and include in the Training of HQP section of your NSERC Discovery Grant [5] :

- Ensure all team members have equitable access to the equipment and resources they need to complete their projects
- Comment on how you employ flexible working arrangements to accommodate diverse needs, acknowledge multi-faith holidays, facilitate open communication, and have equitable processes for distributing learning/dissemination opportunities
- Link this section to professional development opportunities for both your trainees and yourself to [institutional EDI training opportunities](#), [unconscious bias training](#), etc. that you require to be part of your research group
  - The Canadian Council for Diversity and Inclusion offers a free EDI certification course for students called [See Different](#)
  - Has your research team enrolled in [Lakehead's Inclusive Research Leadership Certificate Program](#)?
- Consider developing mentorship opportunities for research team members, including funding for ongoing training and professional development opportunities, in the research proposal
  - Ensure that mentorship activities are valued and recognized as an important research activity
- Ensure that your group meetings incorporate all diverse perspectives and that everyone embraces differences with respect and dignity
- Cultivate positive beliefs about diversity by discussing the benefits associated with diversity in research teams
- Develop a formal statement from your research group regarding your commitment to diversity that is posted and updated yearly
- Ask group members to share their traditions with the group and jointly hold celebrations
- Accommodate individuals who may need flexible working hours and, ensure access to resources, including group meetings and discussions, are accessible to everyone
- Discuss any accessibility needs that may need to be addressed in your research team for everyone to participate equitably
- Encourage trainees to get involved in on-campus events that will broaden their horizons with respect to different cultures and perspectives (including

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[5] Partially adapted from the [University of Guelph's Building Community: Introduction to Equity, Diversity and Inclusion Booklet](#)

the [Indigenous Students Centre](#), [Multicultural Centre](#), [Gender Equity Centre](#), and [Pride Central](#))
- Provide financial support for trainees to attend conferences and for community members who participate in your research activities
- Create a mentorship program for new/international trainees. For further support for international students and staff, contact [Lakehead International](#)

Useful Resources:
- [Tri-Agency Bias in Peer Review Module](#)
- [Link to Lakehead's EDI in Research Training Web Pages](#)
- NSERC [Guide for Integrating EDI Considerations in Research](#)
- NSERC [Guidelines on the assessment of contributions to research, training and mentoring](#)