



Smart Mobility Advanced Research & Training

Program Requirements – PhD Level Trainees

PhD trainees must complete M1, PS1-PS6, TS1, and one of TS2 or TS3 prior to graduation. The progress of these requirements (whether it is incomplete, complete, or planned for completion) must be recorded and updated in the 4 forms [HERE](#) at the start of each term.

☐ M1 – Internship & Exchange – minimum **280 hours**

Trainees are required to pursue hands-on experience in industrial, public/private sector, Indigenous, international, or research settings. Research settings can include lab work in an external post-secondary institution (for example, York trainee can intern at a lab within UofT).

☐ PS1 – Research Management Courses

Research management courses/sessions are offered at the CREATE Annual Conference. An equivalent course or session may be accepted. It should cover topics such as communication, time management, research dissemination and career planning. Acceptable courses can be found here: <https://www.yorku.ca/gradstudies/gpps/>

Trainees must complete this requirement **once**.

☐ PS2 – Participation in CREATE Annual Conference – 2 days

York University hosts a CREATE Annual Conference that showcases multiple NSERC-funded CREATE programs. This 2-day event offers trainees an opportunity to engage in cross-disciplinary science and technology workshops, while attending keynote presentations and participating in career panels. Trainees must present their research to an audience of peers, faculty, and industry professionals which will foster networking, knowledge exchange, and professional development. Trainees must complete this requirement **annually**.



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☐ PS3 – Entrepreneurship in Smart Mobility

Entrepreneurship courses/sessions are offered at CREATE Annual Conference. An equivalent course or session may be accepted. It should focus on entrepreneurship (innovation management, IP, commercialization, etc.) and prepare trainees for the commercial realities of their research endeavors. Trainees must complete this requirement **once**.

☐ PS4 – Outreach Activity

Trainees must complete at least one outreach activity to reinforce the program's commitment to social responsibility. Trainees will develop their public engagement skills as they communicate their research to diverse audiences (for example, involvement in initiatives like the STEM Community Leaders Program, etc.)

☐ PS5 – Annual DEDI Course/Session

DEDI sessions are offered at the Annual CREATE Conference. An equivalent course or session may be accepted. It should promote continuous learning and the application of best practices in serving Northern communities. Trainees will gain a deeper understanding of Indigenous research methodologies and the importance of incorporating a DEDI mindset in STEM fields. The session may feature guest speakers (at Annual Conference) who are experienced researchers working closely with Indigenous communities, offering practical guidance and insights into developing culturally sensitive research approaches. Trainees must complete this requirement **annually**.

☐ PS6 – REDDI Course

Trainees must complete a course or session that focusses on Rights, Equity, Decolonizing, Diversity & Inclusion (REDDI). It should enhance the trainee's understanding of key issues such as (dis)ability, mental health, and inclusivity in research environments. Trainees should become better equipped to create inclusive, bias-free research settings. An acceptable course is offered here: <https://www.canada.ca/en/women-gender-equality/gender-based-analysis-plus.html>

An equivalent course or session may be accepted.

Trainees must complete this requirement **once**.

☐ TS1 – Technical Courses – One 3-credit course

Trainees must take at least ONE 3-credit graduate level technical courses in any of the following themes:

- Data Analytics for Urban Mobility
- Connected Mobility Systems
- Digital Twin Applications in Mobility
- Designing Sustainable Transport Solutions
- Autonomous Vehicle Technologies and Intelligent Transportation

All PhD trainees can choose and complete either TS2 or TS3:

☐ TS2 – Living Lab Technology Demonstration – 1 to 4 weeks

Trainees must explore mobility solutions using a living lab to refine technologies in a controlled environment.

☐ TS3 – OCN Community Field Deployment – 1 to 4 weeks

One of the goals of the program is the work with members of the OCN (Opaskwayak Cree Nation), to improve their access. The OCN is located in northern Manitoba, Canada, near the town of The Pas. Students must travel to the site and test the practical effectiveness of their newly developed technologies.