

THE FRED OTTO

DISCOVER^e

PROGRAM



2025

IMPACT REPORT

2025 Camp Highlights



2025 was a big year for The Fred Otto DiscoverE Program! We introduced our new Civil & Environmental Engineering camp, brought summer camps to Augustana campus in Camrose for the first time in over 5 years, sent classroom kits to 5600 students across Alberta and engaged with over 9500 youth across the province and beyond.

Off-Campus Camps

This summer DiscoverE took the show on the road and ran summer camps in 10 different remote locations! We were able to return to all of the communities that we worked with in 2024, as well as Horse Lake First Nation and Augustana campus in Camrose. Best of all, thanks to the generosity of our partners, we were able to offer camps free of charge to participants in Indigenous communities. We were fortunate to host Elders and Knowledge Keepers at many of our locations and to take our campers on field trips such as the Philip J. Currie Dinosaur Museum and the Big Molly regional sand facility.

Off-Campus 2025

497 Program Hours | **333** Off-Campus Participants



"It's pretty cool how people made Tipis before they had a lot of technology, like forklifts. I wonder if I can build a full size Tipi some day"
-Grade 4 Camper



2025 marked the second year of DiscoverE's partnership with IndigeSTEAM. Experts from IndigeSTEAM taught campers all about Indigenous science! Campers built their own Tipis and learned about aerodynamics, structural differences between Cree and Blackfoot Tipis and the significance of Tipi paintings.



2025 Locations:

- Alexis Nakota Sioux Nation
- Camrose
- Cold Lake First Nation
- Duncan's First Nation
- Grande Prairie
- Horse Lake First Nation
- Kehewin Cree Nation
- Paul First Nation
- Sturgeon Lake Cree Nation
- Yellowknife

On-Campus Camps

DiscoverE hosted over 2000 curious campers this summer. With camp themes ranging from Biomedical Engineering to Mechanical Engineering to Robotics, at DiscoverE there is something for everyone! This year we were proud to launch our brand new Civil & Environmental Engineering program. Campers learned all about infrastructure, sustainability and how our communities are built. They even designed their own version of Edmonton, complete with power grids, waste management systems and more!



"I'm hoping that this camp helps me become an aerospace engineer. I want to learn about projectiles, space, and engineering in general."
-Grade 4/5 Camper



On-Campus 2025

298 Unique Projects | **2039** On-Campus Participants

Year 2 of ELITE

The ELITE Program for Black Youth and DiscoverE teamed up to fund 60 future engineers to attend summer camp free of charge! Each ELITE participant attended camp for two weeks in a row to try out different types of engineering.



Hong Kong Campers

This summer we hosted a cohort of 16 students visiting from Hong Kong. These students took part in two weeks of a unique combo camp with DiscoverE and the Faculty of Science camps in order to experience everything STEM has to offer.





Classroom Kits

In 2025, DiscoverE sent 140 Classroom Kits to teachers across Alberta free of charge! Each Classroom Kit highlights a specific engineering discipline with a unique activity corresponding to that field. In these projects, students learn how to unblock arteries using a memory metal called Nitinol, build their own apparatus to remove carbon dioxide from the air, make water filtration systems and much more!



5600
students
reached

“Thank you for this kit! It was well organized and easy to use. The kids loved it. I will use it again.”
-Grade 11 Teacher



140
kits sent
across Alberta

23
different
communities

“I’m the librarian at our school and do makerspace twice a year with the students (. . .) I used the kits the last two years and the students and I have really enjoyed them. The kids love to build, and bringing the engineering design process into it has been very educational for the kids. It was great to see them building, reflecting and rebuilding.”
-Canalta Elementary School Librarian

fem+

The Faculty of Engineering’s fem+ Program is a mentorship experience for female, non-binary and 2SLGBTQ+ high school students who are interested in engineering. This 7-month program includes in person events like Mentor Shadow Day, virtual workshops on topics from applications to engineering disciplines, group study nights and more.



73 fem+
Mentees

36 fem+
Mentors

“I really enjoyed exploring the University of Alberta campus during in-person events. It gave me a chance to directly experience the atmosphere and spaces available to students at the university, and convinced me that the U of A is my dream school!”
-fem+ Mentee



Special Events



26
Special Events

1465
Participants

Throughout the academic year, DiscoverE staff led over 2000 hours of tours, seminars and other special programs! These events ranged from tours of the mechanical engineering shop and nanoFAB facility, to breadboarding projects and 3D printing workshops. We hosted international visitors, travelled to schools and participated in events with partners like WISEST, Science FUNdamentals and TeamUp Science.



Mentorship

This summer we hosted 110 different summer camp Mentor sessions! Mentors are graduate students, professors or engineering professionals who volunteer their time to connect with our campers. Mentors show our participants how what they are learning in camp connects to the real world. We are lucky to have such amazing mentors who want to engage with our campers and showcase their incredible research! Some highlights from this summer include sessions in the mechanical engineering thermal spray lab and the E.H. Strickland Entomological Museum.



110 Mentor Sessions



Mentor Feature: River Tray

The Undergraduate Hydraulics Lab, featuring the river tray, is one of the many fascinating laboratories in the Faculty of Engineering. Campers used it to simulate river flows, learn topography, test bridge designs and even plan cities this summer.

"I want people to get excited about civil and water resources engineering. It's relatable to their everyday towns, villages and cities. The river tray simulates a meandering river; something they might see everyday. The lab is a very flexible space and gives (campers) the freedom to play around without worrying about the water or sand getting on the floor. Something they may not be able to do at home they can do here."

-Vincent McFarlane, Ph.D., P.Eng., Assistant Professor

Staff & Junior Instructors

Our amazing DiscoverE staff team is made up of undergraduate students who are pursuing their studies at the U of A. They study programs including engineering, education, science, psychology, nursing, law and arts. We also have an incredible team of Junior Instructors and Volunteers who help make the magic happen!



71

Student Staff

13

Junior Instructors

52

Volunteers

5076

Volunteer Hours



Camper Quotes

"I want to be an engineer that makes things that keep animals safe, like highway crossing for caribou"
-Grade 4 camper



"Robots? Really? This is the best day of my life!"
-Grade 2 camper



"I want to be an engineer just like my mom! I want to be a chemical engineer!"
-Grade 3 camper



Thank You!

Thank you to all of our partners, donors and the Faculty of Engineering for another amazing year at DiscoverE! It is because of your support that we are able to continue empowering young minds and fostering a love for STEM. 2025 marks 33 years of DiscoverE camps, and we are going to continue our mission of inspiring the engineers of the future!



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