

# Annual Report

## Engineering Co-op and Internship

2022



# Welcome to our Annual Report.

All Engineering programs at Ontario Tech University include co-operative (co-op) education opportunities providing students with transformative learning experiences by alternating study semesters with relevant paid work terms with employers. Despite the continued challenges with the COVID-19 pandemic, 406 of our Engineering students completed a co-op work term or an internship (several co-op work terms back-to-back) with 143 employers just in 2022. Thank you to the employers and trusted partners for providing meaningful work experiences to our students.

Students love the co-op education model because it allows them to develop tangible skills employers are looking for, gain valuable work experience while pursuing their undergraduate degree, and earn money to offset the cost of

**Hossam Kishawy, Ph.D., P.Eng.**  
Dean - Faculty of Engineering and Applied Science

**Qusay H. Mahmoud, Ph.D., P.Eng.**  
Associate Dean - Experiential Learning & Engineering Outreach

education. Our co-op stream is flexible and designed to provide students with a variety of work-integrated learning co-op opportunities.

One of the events we organize during the Fall semester is the Reverse Career Fair, where students showcase their projects to employers. In 2022, the event attracted 69 employers who interacted with 125 Engineering students. If you would like to learn more about our co-op stream, advertise jobs for our students, or attend our 2023 reverse career fair, please contact us.

We invite you to explore our Engineering co-op programs and attend our next Reverse Career Fair on October 4, 2023.

# Contents

Engineering Programs at Ontario Tech University	4
Co-op in Numbers	5
2022 Co-op Stats	5
Events	7
Why Participate in the Co-op Program?	9
Student Testimonials	11
Summary	13
Appendix: List of Employers for January 2022 – December 2022	13







# Engineering Programs at Ontario Tech University

Our engineering programs are designed to prepare students to meet industry needs. All of our undergraduate Engineering programs have co-op opportunities.

- ▶ Automotive Engineering
- ▶ Electrical Engineering
- ▶ Manufacturing Engineering
- ▶ Mechanical Engineering
- ▶ Mechatronics Engineering
- ▶ Nuclear Engineering
- ▶ Software Engineering

In addition to these programs, Ontario Tech University is launching two new engineering programs in Fall 2023.

- ▶ Energy Engineering
- ▶ Industrial Engineering

We are excited for our first cohort of co-op students from these new programs to start co-op as soon as May 2025.

To learn more about our Engineering Programs, please visit [ontariotechu.ca/programs](https://ontariotechu.ca/programs)

## Preparing Our Students for the Workplace

We launched our new preparatory co-op course Professional Competencies for Engineers in September 2022. This course is designed to prepare students for the workplace and is completed by students prior to beginning their first co-op work term. The course serves as an introduction to professional engineering competencies and covers topics related to the job market, such as communication, social and cultural diversity, creativity and innovation, networking and interviewing.



# Co-op in Numbers

- ▶ 698 work terms were completed by Engineering students this year: 71 co-op work terms (4-months duration) and 627 co-op internship work terms (8-, 12-, or 16-month duration).
- ▶ 406 students completed a co-op placement in 2022, an increase of 17.3% compared to 2021.
- ▶ 421 unique co-op placements were completed by students in 2022.
- ▶ 143 unique employers hired Engineering students for co-op positions, an increase of 16.3% compared to 2021.
- ▶ 156 students attended the co-op and Internship Reverse Career Fair. 125 students attended from the Faculty of Engineering and Applied Science, which accounted for 80% of student attendees.
- ▶ 69 unique industry partners attended the Reverse Career Fair.
- ▶ Over 400 students completed the Professional Competencies for Engineers (ENGR1000W) course in the Fall 2022 semester.

## 2022 Co-op Stats

- ▶ Students participated in a total of **698 co-op work terms** in 2022. Figure 1 shows a breakdown of work terms completed by program.

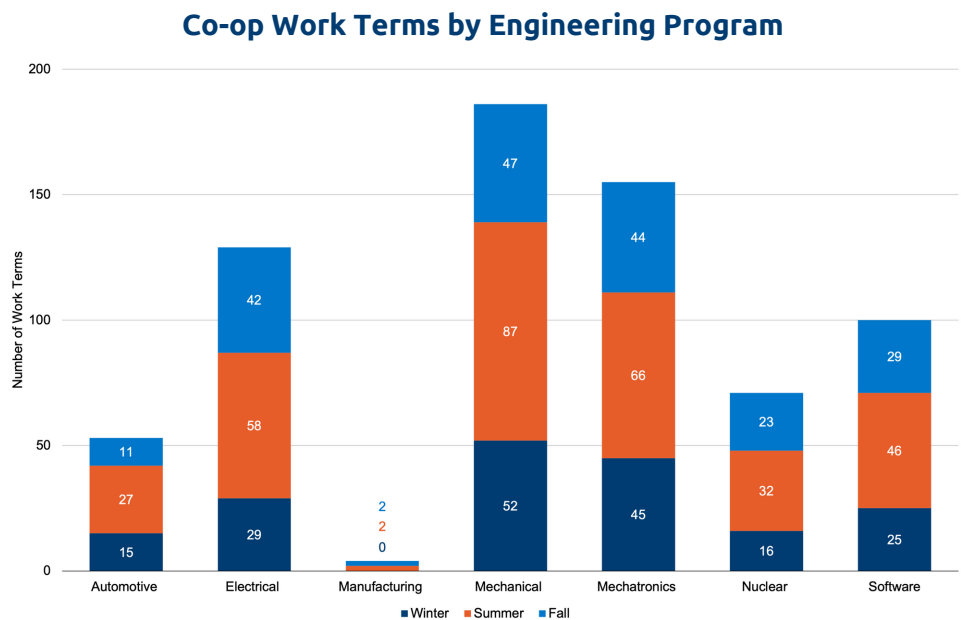


Figure 1: Summary of co-op work terms completed by engineering program.

## 2022 Co-op Stats

- Students participated in a total of **421 unique placements** with employers. Figure 2 displays a summary of co-op placements by duration.

**Co-op Placements by Duration**

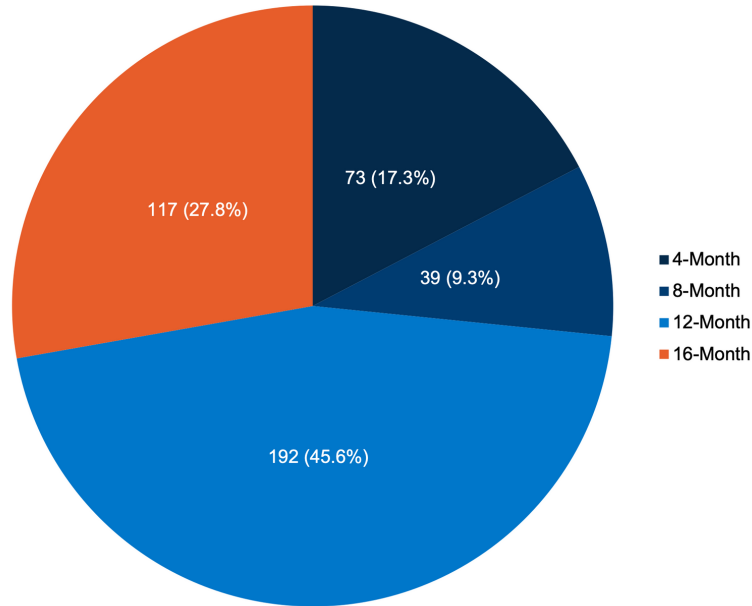


Figure 2: Summary of co-op placements by duration (including those continuing from 2021 and those continuing into 2023).

- Figure 3 shows a **summary of co-op placements completed** by program and duration.

**Co-op Placements by Engineering Program and Duration**

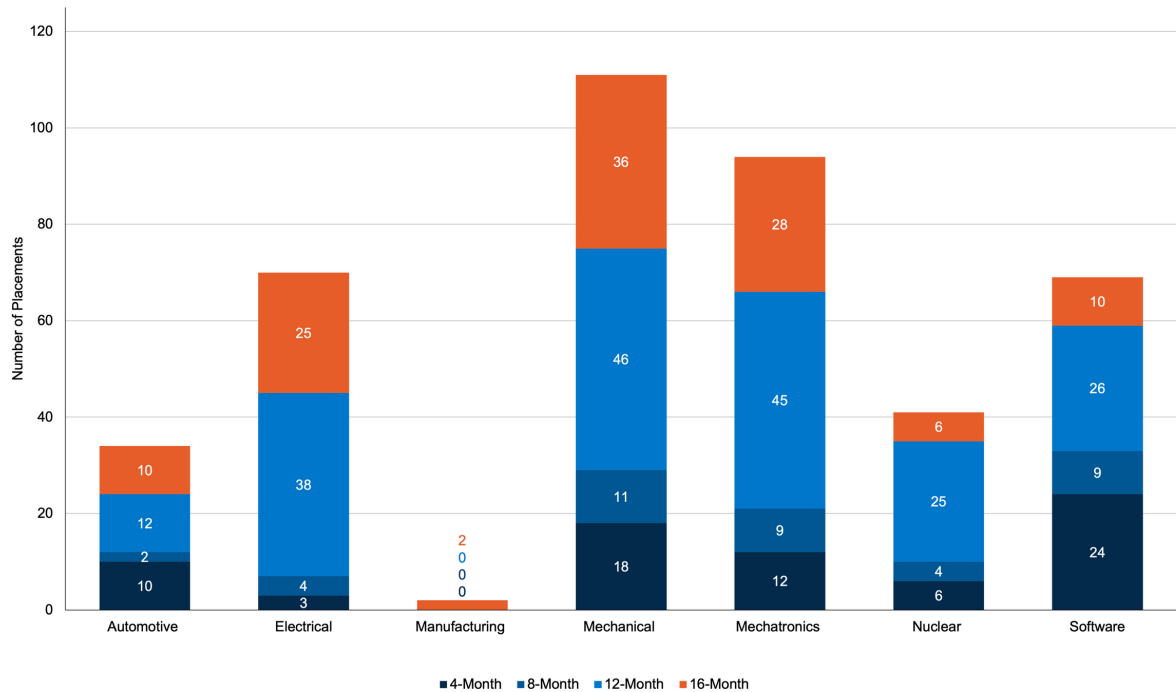


Figure 3: Summary of co-op placements completed by engineering program and duration (including those continuing from 2021 and those continuing into 2023).



# Events

Over the year, a variety of workshops and events were offered by our team and the Career Center for students to explore opportunities and develop their skills:

- ▶ Co-op Drop-in Sessions and 1:1 Student Appointments
- ▶ Employer Information, Networking, and Recruitment Sessions
- ▶ All About Co-op Workshops
- ▶ Kick Start to the New Year - Speed Networking Event
- ▶ Co-op Success Workshops
- ▶ Resume and Cover Letter, Interview, Networking, LinkedIn, Presentation, and Job Search Workshops
- ▶ Ontario Tech and Durham College Job Fair
- ▶ Reverse Career Fair Prep Session
- ▶ Reverse Career Fair

## Employer Testimonial

“ My first time at a reverse career fair; it was a refreshing experience seeing all the talented students and their fresh and creative projects.  
- **ATX Networks** ”

# The Reverse Career Fair

The Reverse Career Fair is an annual affair at Ontario Tech University in the month of October. It is our largest co-op event and a valuable opportunity for students to showcase their skills, passions, and experiences to employers. The Reverse Career Fair is for students seeking a co-op role as well as students who are applying for new graduate opportunities.

At this unique job fair, it is the students who represent themselves at booths while employers circulate the room. Students often display projects they have worked on to showcase their talents and aspirations. The fair is a fabulous opportunity for employers to meet students to recruit talent and for students to make professional connections, discover

employers, and gain networking experience.

In October 2022, a total of 69 different industry partners attended our Reverse Career Fair and connected with students from the Faculty of Business Information and Technology, Faculty of Engineering and Applied Science, and Faculty of Science (Computer Science and Applied & Industrial Mathematics programs only).



## Results of Employer Survey

- ▶ 83.4% of respondents agreed that participating in the Fair was a valuable opportunity that met their desired goals for attending.
- ▶ 80% of respondents met with students they were interested in recruiting.

## Results of Student Survey

- ▶ 92.1% planned to follow up with at least one of the companies they interacted with.
- ▶ 80.4% agreed that participating in the event helped them to better understand how the skills they are learning in the program will apply in the job market.

### *Save the Date!*

We will be hosting this year's Reverse Career Fair on October 4, 2023. If your organization is interested in participating, please contact [careercentre@ontariotechu.ca](mailto:careercentre@ontariotechu.ca).

# Why Participate in the Co-op Program?

Students not only get the opportunity to learn practical skills through the co-op program, their experiences also help them secure employment upon graduation. Here are some students who participated in co-op, gained valuable work experience, and are now working!

## Alumni Testimonials



### Andrew Shiu

Quality Assurance Analyst  
Hyundai Auto Corp. Canada

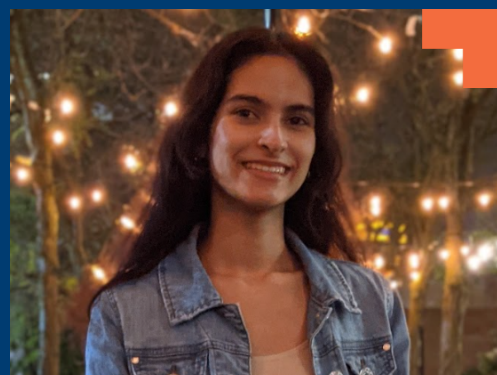
"Job experience is better than any other experience you could gain. Not only does it teach you real world applications of classroom theories, it also teaches you how to think

critically and have a meaningful impact with the work that you do. Although you must learn and maintain professionalism while on the job, don't forget to let loose from time to time, network, make friends, and ensure you connect with people you worked with well after your work term; you never know what the future holds!"

### Cassidy Linhares

Software Engineer | Mark43

"Don't be afraid to ask for help or take on things you don't know much about! You're not expected to know everything, and everyone around you wants to see you grow and succeed! The best way to grow is to ask questions and try new stuff. And if you haven't thought about taking an internship/co-op, then try one! You learn a lot about the industry, how your education applies in real life, and you get to learn a lot about yourself and see if the position is right for you!"





## Alumni Testimonials



**Nevin Swanson**  
Reactor Safety Engineer | OPG

"If you are given the opportunity to apply to co-op/internship, apply to as many as possible. The benefits of being accepted and working in your desired field before graduating is it gives you an idea of what you may and may not like. This experience also gives you time for the betterment of your personal and professional skills. I definitely improved some of my skills during my internship with OPG.

It is vital when you do get hired on for your co-op/internship that you always ask questions and offer help on a regular basis. Not only does this show you're engaged with your work, it helps build upon your foundation of knowledge. Always try your best, and even if you stumble along the way, that's when you learn the most, so always give it 110%. It was a great experience and in all honesty, was one of the best decisions I made as it helped me network, grow and secure a job after graduation."

**Rakitha Ratnayake**  
Process Improvement Engineer  
Ash Grove Cement

"My advice is to start applying for co-op/internship postings as early as possible, don't wait until the last moment. Always have your resume and cover letter updated and ready to be shared with anyone you meet because that might be your connection to finding an employer."



**Shohaib Nadeem**  
Engineering Development Program  
Honda of Canada Mfg.

"Work hard during your internship. When I walked in, everything seemed like I didn't fit - everyone seemed so smart. It eventually sticks, and if you can prove yourself through hard work, you

can open the door to being hired back full-time after graduation. I had my full-time position signed off on in September of my last year in school, and this makes it a lot easier to focus on school for the last semester!"



## Student Testimonials

Here's what some of our students had to say about their co-op and internship experiences!



### **Tayeeba Tarannum**

**Nuclear Engineering Development Student  
12-month internship at Bruce Power**

"I am working as a development student in the Configuration Management and Design Programs department. My team leader is a fire safety specialist engineer. One of my main responsibilities is helping my team with fire safety evaluation of extended work storage areas in Bruce A and B stations and assisting with the extended work storage approval process."



### **George Mikhael**

**Transit Management Systems Officer  
12-month internship at York Region Transit**

"I provide technical and field support for the operation and maintenance of ITS hardware, software and technology infrastructure in areas such as Automated Fare Collection, Variable Messaging Signs, CCTV, Public Announcement Systems, Computer-Aided Dispatching and Automated Vehicle Location. I also create software compatible files or data to support changes to the systems software due to expansion and/or changes in Transit services (i.e. new routes, new buses, etc.), such as MP3 files, station GPS coordinate files, etc."



**Lyba Mughees**  
Software Development Student  
4-month co-op at Bell Canada

“The main thing that motivated me to apply for co-op was the experience. Being in Software Engineering, there are many aspects to explore. With a co-op, I was able to explore the different sides of development (full stack, automation, etc). This helped me narrow down exactly what pathway I want to do after the completion of my degree.”



**Ghufraan Shahid**  
Engineering Intern  
8-month co-op at OPG

“Being an engineering co-op student, I work with several people from all sorts of departments. My main goal is to make maintenance processes easier and more efficient. For example, I developed PowerBi's to keep track of all the Door and Crane maintenance updates throughout the Darlington Nuclear Generating Station.”





# In Summary

The Engineering Co-operative Education program is mutually beneficial for both students and employers. Experiential learning through the co-op program allows students to develop tangible skills and work experience while pursuing their undergraduate degrees. For employers, co-op students can be a valuable addition by bringing enthusiasm and new ideas to your team.

We are excited for the future as our Engineering Co-op Program continues to grow; we look forward to continuing to support students and employers by offering co-operative education experiences.

# Appendix

## List of Employers for January 2022 – December 2022

The following is a comprehensive list of all the employers who hired students throughout the year.

1. ABC INOAC Exterior Systems
2. ABC Technologies Inc.
3. ABI Ltd.
4. Aecon
5. Alectra Utilities
6. Alithya
7. Amazon
8. AMD
9. Apotex
10. ATS Industrial Automation Inc.
11. Automotive Centre of Excellence
12. Bell Canada
13. Blackberry
14. Bluewrist Inc.
15. BMW Group Canada
16. Bruce Power
17. Cadillac Fairview
18. Calian
19. Cameco Corporation
20. Can-Eng Furnaces International Ltd.
21. Canada Post
22. Canada Revenue Agency
23. Canadian Nuclear Laboratories
24. Canadian Tire
25. Caseware International Inc.
26. CBC
27. Celestica
28. CertainTeed Canada Inc.
29. CIBC
30. Clean Valley Bio-Filtration Technologies CIC
31. CNSC
32. Coca Cola
33. Coconut
34. Collins Aerospace
35. Conavi Medical
36. Connexall/GlobeStar Systems Inc.
37. Coordinate Industries Ltd.
38. CSA Group
39. Curtiss Wright
40. Custom Plastics International
41. DD MAC Electric
42. DELL Canada
43. Dynacast
44. E.S. Fox Ltd.
45. EM Dynamics Ltd.
46. Environment & Climate Change Canada
47. Evertz Microsystems Ltd.
48. FAST Enterprises LLC
49. FGF Brands

50. FIO Automotive Canada Corporation
51. Fluidigm Canada Inc. (Ascent)
52. Flynn Canada Ltd.
53. Foresight Analytics
54. Framatome Canada Ltd.
55. General Dynamics Land Systems
56. General Motors
57. Geotab Inc.
58. Gerdau Long Steel North America
59. GGNB Engineering Ltd.
60. GOT-Global Outsourcing Team (Canada) Inc
61. Grantek
62. Harris Stolper International Inc.
63. Honda
64. Horizon Plastics International
65. Husky Oil Operations Ltd.
66. Hydro Mississauga
67. Hydro One
68. Ianuzziello & Associates Inc.
69. IBM
70. Innovative Contractor Solutions
71. Invisirail
72. Invista
73. IPEX Management Inc.
74. Kinectrics
75. Klick Health
76. Kratos Antenna Solutions
77. Kubota Canada LTD
78. Linamar
79. Lincoln Electric
80. Lumentum
81. MacDonald Dettwiler and Associates Ltd. (MDA)
82. Magna/Massiv Automated Systems
83. Manulife/John Hancock
84. Martinrea International Inc.
85. McMaster University
86. Metrolinx
87. Ministry of Children, Community and Social Services
88. Ministry of Transportation
89. Mitacs Globalink Research Internship, U of Rostock
90. Modern Niagara Toronto Inc.
91. Multimatic Dynamic Suspensions
92. Musashi Auto Parts Canada Inc.
93. Napoleon/Wolf Steel Ltd.
94. Nelson Industrial Inc.
95. Nestle Canada Inc.
96. Next Hydrogen
97. Nuclear Promise X Inc. (NPX)
98. OMERS
99. OnCall Health
100. Ontario Energy Board
101. Ontario Power Generation
102. Ontario Tech University
103. Oshawa PUC Networks Inc.
104. PCL Constructors Canada Inc.
105. PNR RailWorks Inc.
106. PointClickCare
107. Procter & Gamble Inc.
108. PWC
109. Quasar Consulting Group
110. RBC
111. RCMP
112. RelationalAI Canada Inc.
113. Repliers.io
114. Safran Landing Systems
115. Sanofi Pasteur
116. Shawcor
117. Siemens Canada Ltd.
118. SNC Lavalin
119. Sonoco Flexible Packaging
120. Stackpole International
121. StackTeck Systems Ltd.
122. Stubbe's Workforce
123. SunLife Assurance Company of Canada
124. TD Bank Group
125. Tesla
126. The Miller Group
127. The Regional Municipality of York
128. ThermoFisher Scientific
129. Toronto Hydro
130. Toyota
131. Trenton Cold Storage
132. Trojan Technologies
133. TS Tech
134. Tucows
135. United Wire & Cable
136. Veoneer Canada Inc.
137. VR Mechanical Solutions Inc.
138. VSC Group
139. Wabtec Corporation
140. Wipro
141. Wiz Robotics
142. WSP Canada Ltd.
143. Xenonix



## Contact Us

**Candace Chard**

*Co-op and Internship Officer*

*[engineering.co-op@ontariotechu.ca](mailto:engineering.co-op@ontariotechu.ca)*

*905-721-8668 ext. 5702*



@OT\_FEAS

[engineering.ontariotechu.ca/co-op](http://engineering.ontariotechu.ca/co-op)