Annual Report

Engineering Co-op and Internship

2021

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 challenges with the COVID-19 pandemic, 346 of our Engineering students completed a co-op or an internship (several co-op work terms back-to-back) with 123 employers just in 2021. 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 education. Our new 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 2021, the virtual event attracted over 54 employers who interacted with over 250 students. If you would like to learn more about our co-op stream, advertise jobs for our students, or attend our reverse career fair, please contact us.

I invite you to explore our Engineering co-op programs and attend our next Reverse Career Fair.

Qusay H. Mahmoud, Ph.D., P.Eng.

Associate Dean
Experiential Learning & Engineering Outreach

Contents

Who we are.

The Engineering Co-Op and Internship Office is committed to supporting eligible students enrolled in all Engineering programs at Ontario Tech University. Our goal is to assist students in all aspects of finding an appropriate Co-Op or Internship placement that will help them get valuable engineering work experience while completing their undergraduate degree program.

Co-op is a degree requirement for students in the Engineering Co-op stream. Students are required to successfully complete the equivalent of three 4-month work terms. Placements can range anywhere from 4 to 16 months, and most students apply to do a 4-month summer co-op after second year, and a longer 8, 12, or 16-month co-op internship after third year.

We provide engineering programs that are designed to prepare students to meet industry needs. All of our Engineering programs have Co-op opportunities.

Our programs include:

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

**Visit us online to learn more: engineering.ontariotechu.ca**

A year in review.

- 590 work terms were completed by Engineering students for both co-op and internship this year. This included 138 co-op work terms and 452 co-op internship work terms.
- 346 unique students completed a co-op or internship in 2021.
- As the economy recovered and employers adjusted from the onset of the COVID-19 pandemic, there was a 21.6% increase in overall participation in the co-op and internship program from 2020 to 2021.
- 123 unique employers hired Engineering students for co-op or internship positions.
- 135 Engineering students participated in our largest event, the Virtual Reverse Career Fair.

Co-op and Co-op Internship Work Terms in 2021
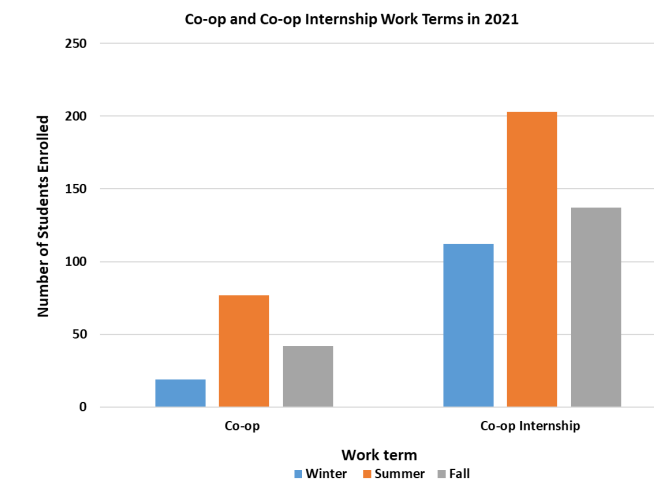
While the COVID-19 pandemic impacted the number of co-op and internship positions, many students were still able to secure co-op opportunities.

Co-ops and Co-op Internships By Program in 2021
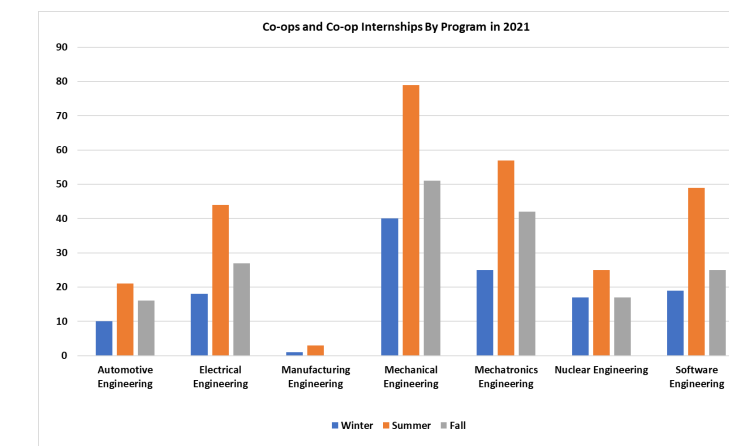
This graph gives an overall summary of the Co-op Program for 2021. The number of students in co-ops and co-op internships have been combined, sorted by program and work terms in order to obtain the following trend.

This year's event highlights.

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:

- Weekly Co-op & Internship Virtual Drop-in Sessions
- Employer Information Sessions
- Networking Sessions
- All About Co-op Workshops
- Engineering Co-op Student Panel Event Nights

- Co-op Success Workshops
- Career Direction and Goal Setting
- Resumes and Cover Letters
- Utilizing LinkedIn
- Behavioural Interview Skills
- Job Search Strategies

The Reverse Career Fair

The Reverse Career Fair is one of our largest events. It is an opportunity for students to showcase their skills and experiences to employers for co-op/internships as well as new graduate opportunities. Students in second year or above can participate.

The Reverse Career Fair is different from your traditional Job Fair. Rather than recruiters setting up booths where students circulate the tables to meet employers, students set up booths and employers visit the students at their tables. Our student participants are encouraged to display projects, which is a great way for students to start conversations and show employers their wonderful talents and passions. It is a fabulous opportunity for employers to meet students and recruit talent and for students to gain interview experience, discover employers, and make professional connections.

Due to the COVID-19 pandemic, the Reverse Career Fair was held virtually for a second time in 2021. The Faculty of Engineering and Applied Sciences collaborated with the Career Centre, Faculty of Business & Information Technology, Faculty of Energy Systems and Nuclear Science, and the Faculty of Science (Computer Science, Applied & Industrial Mathematics programs) to host the 10th annual Reverse Career Fair from October 12th to October 15th. The virtual Reverse Career Fair was set up differently from the traditional in-person fair. Although students were unable to physically display their projects, they were encouraged to submit an online portfolio for employers to view. The employers hosted one-hour sessions, which began with an overview of their company. The remainder of the time was spent networking with students.

We hope that in fall 2022, we will be able to resume our in-person Reverse Career Fair format to allow students to connect on a deeper level with employers and really show off their skills and abilities. If your organization is interested in participating in the next Reverse Career Fair in October 2022, contact the Career Centre at careercentre@ontariotechu.ca.

Why participate?

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 found an engineering job after graduation.

How do employers benefit?

› A student available for a 4, 8, 12, or 16-month term will have completed a minimum of 2 years of academic study, thereby obtaining a solid base of theory and technical skills.

› Students could be assessed by employers for their ability, professionalism and aptitude as potential career employees.

› Students inject energy, enthusiasm and new ideas into your organization.

› Employers develop a collaborative relationship with the university and tap into training and research opportunities.

› Students assist in the management of uninterrupted work flow during periods of vacation or high demand and are valuable contributors in special projects.

› Students offset costs through tax credits of $3000 per work term for hiring a student.

Spencer Lamash

Electrical EIT at Tetra Tech
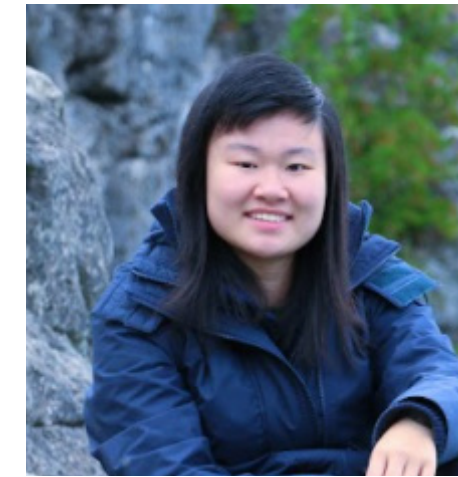
Uni Lee

Project Engineer at ACE Climatic Wind Tunnel

Owen Davis

Assistant Analyst at Kinectrics

Mohamad Saleh

Assistant Technical Engineer/Officer at Ontario Power Generation

Brooke Godding

Graduate Trainee Program - Assistant Analyst at Kinectrics

Student Testimonials.

Ashley Sun

Co-op Technical Consultant, 12-month internship at Alythia

"As a technical consultant, my tasks vary from project to project. I have been focused on creating the front-end and back-end development of the project's HMI and PLC to the satisfaction of our clients. My position also involves writing documentation such as the Cyber Security Assessment, Computer System Design and more. As an internal (non-client) project, I have been working on a web development and database project".

Mehboob Karim

Technical Support Intern, 16-month internship at Tantalus System Corp

"My position was Technical support intern where I was working with teams of engineers and customer operations, dealing with the administrative duties of the company as well as testing software deployment. I was able to improve my public speaking skills by taking part in weekly sprint meetings. In addition, I improved my ability to learn quickly, as I had to learn many aspects of the job independently when other experienced team members were busy with different projects."

Fhaad Lockhat

Quality Engineering Intern, 4-month co-op at Tesla

"The work atmosphere was very team-centric, supportive, and busy. With consulting work there is constant communication. Whether it be between Mechanical or Electrical disciplines or with Architects, and client bases. Communication was essential to coordinate our designs. There was also a lot of support. They would always encourage me to ask questions, and answer them in great detail. The busy environment came from incoming, in progress, and pending projects, but the workload was distributed fairly in order to ensure the deadlines were met."

Ashley Sun

Mechanical Design Intern, 4-month co-op at Qusar Consulting Group

"The work atmosphere was very team-centric, supportive, and busy. With consulting work there is constant communication. Whether it be between Mechanical or Electrical disciplines or with Architects, and client bases. Communication was essential to coordinate our designs. There was also a lot of support. They would always encourage me to ask questions, and answer them in great detail. The busy environment came from incoming, in progress, and pending projects, but the workload was distributed fairly in order to ensure the deadlines were met."

In Summary.

Co-operative (co-op) education opportunities allow students to develop tangible skills and gain valuable work experience while pursuing their undergraduate degree. All of our undergraduate Engineering programs include co-op opportunities, providing experiential learning that integrates academic studies with paid work experiences.

Participation in the co-op program is mutually beneficial to students and employers. The Engineering Co-Op and Internship Office is dedicated to supporting students to secure valuable work experiences and to ensuring employers' industry needs are met and fulfilled.

Appendix

A complete List of Employers for January 2021 – December 2021.

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

1. ABC Technologies Inc.
2. ABI Ltd.
3. Aecon
4. Alectra Utilities
5. Alithya
6. Altairix
7. Amazon
8. Apotex
9. Bell Mobility
10. BESTECH/Inovinta Ltd.
11. BGIS
12. Bluewrist Inc.
13. BMW Group Canada
14. Bradken Canada Manufactured Products Ltd.
15. Bruce Power
16. BWXT
17. Cameco Corporation
18. Canada Revenue Agency
19. Canadian Nuclear Laboratories
20. Caseware International Inc.
21. Celestica
22. CircuitIQ
23. Conavi Medical
24. Connexall/GlobeStar Systems Inc.
25. Curtiss-Wright
26. Elexicon Group
27. EM Dynamics Ltd.
28. Energy Solutions Canada
29. Environment and Climate Change
30. FGF Brands
31. Fluidigm Canada Inc. (Ascent)
32. Flynn Canada Ltd.
33. Foresight Analytics
34. Framatome Canada Ltd.
35. Gastronomous Technology
36. Gatik.ai
37. General Dynamics Land Systems
38. General Electric
39. General Motors
40. Geotab Inc.
41. Gerdau Long Steel North America
42. Goodyear Canada Inc.
43. Grantek
44. Grundfos Canada Inc.
45. Honda of Canada Mfg.
46. Horizon Plastics International
47. HSBC
48. Husky Injection Molding
49. Hydro One
50. IBM
51. Industrious CRM
52. Intelletto Technologies Inc.
53. Invista
54. InvoDane Engineering
55. IPEX Inc.
56. Kinectrics
57. Kinross
58. Klick Health
59. Kubota
60. Lakefront Utility Services Inc.
61. Lifco Hydraulics
62. Linamar
63. Lincoln Electric
64. Liv Building Products Inc.
65. Magna
66. Manulife/John Hancock
67. Martinrea International Inc.
68. McMaster University
69. MDA
70. Microart
71. Ministry of Children, Community and Social Services
72. Ministry of Government and Consumer Services
73. Ministry of Transportation
74. Mircom Group of Companies
75. Multimatic Inc.
76. Municipal Property Assessment Corp (MPAC)
77. MUSASHi Auto Parts Inc.
78. Napoleon/Wolf Steel Ltd.
79. Nelson Industrial Inc.
80. Nuclear Promise X Inc. (NPX)
81. OnCall Health
82. Ontario Energy Board
83. Ontario Power Generation
84. Ontario Teachers' Pension Plan
85. Ontario Tech University
86. OPUC
87. PCL Constructors Canada Inc.
88. PepsiCo
89. PointClickCare
90. Procter & Gamble Inc.
91. Prodigy Education Inc.
92. Quasar Consulting Group
93. RBC
94. RCMP
95. Repliers.io
96. Rogers
97. RTINGS.com
98. S & C Electric Canada Ltd.
99. Safran Landing Systems
100. Sanofi Pasteur
101. Servify
102. Shawcor
103. Siemens Canada Ltd.
104. Siemens Energy (Trench Limited)
105. Sina Printing Inc.
106. SNC Lavalin
107. Square Enix
108. StackTeck Systems Ltd.
109. Stubbe's Workforce
110. Sunlife
111. TetraTech
112. The Commonwell Mutual Insurance Group
113. The Miller Group
114. ThermoFisher Scientific
115. Toronto Hydro
116. Toyota
117. TTM Technologies Toronto Inc.
118. Tucows
119. Tyco Safety Products Canada Ltd/Johnson Controls
120. United Wire & Cable
121. Vantage Marketing Canada
122. Veoneer Canada
123. Veriday Inc.

Contact Us

Candace Chard

Engineering Co-op and Internship Officer

905-721-8668 ext. 5702

engineering.co-op@ontariotechu.ca

@OT_FEAS

engineering.ontariotechu.ca