
ONCAT Final Report:

2016-21- Electrical Techniques Ontario College Certificate to
Electromechanical Engineering Technician Ontario College Diploma

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Bryan Aitken – Project Lead

Nadine Cervi – Pathways Research Consultant

David Simon – Program and Pathways Development Coordinator

Steve Minten - eLearning Manager

Project Team

The project team is comprised of representatives from Lambton College, Canadore College, Conestoga College, Niagara College and a hired Project Manager.

Lambton College Project Team Members:

1. ***Bryan Aitken, Project Manager***
2. ***Steve Minten, eLearning Manager***
3. ***David Simon, Coordinator, Program and Pathways Development***
4. ***Nadine Cervi, Associate Faculty (English) and Pathways Research Consultant***
5. ***Stephen Tigchelaar, Coordinator, Electrical Techniques***

Canadore College Project Team Members:

6. ***Mark Lamontange, Dean, Trades, Technology, Law and Justice & Part-Time Studies***
7. ***Steven Lazarou, Coordinator, Electrical Techniques***

Conestoga College Project Team Members

8. ***Steve Andrushak, Program Coordinator, Electrical Technician Industrial Program & Electrical Techniques Program***
9. ***Josh Hamilton, Adjunct Faculty, Electro-mechanical Engineering Technology***

Niagara College Project Team Members:

10. ***Jeff Murrell, Associate Dean, School of Trades***

Executive Summary

The goal of this project is to provide a pathway for students graduating from Electrical Techniques, Ontario College Certificate programs into receiving Electromechanical Engineering Technician, Ontario College Diploma programs. Canadore College, Conestoga College, Lambton College and Niagara College have Electrical Techniques programs, while Conestoga College and Lambton College have an Electromechanical Diploma program.

The original design team began the project by investigating the gaps in the knowledge between students from first-year Electromechanical, and the one-year Electrical Techniques program. As anticipated, most of the gaps were mechanical in nature, with only a few gaps in electrical that could be picked up by modifications to current Techniques programs. These gaps were also compared to the Ministry of Advanced Education and Skills Development (MAESD) Program Standards to identify any deficiencies relative to these publications.

There was a delay during the summer and early fall, 2016 while several key individuals changed roles, left for other colleges, or found other employment. A new project team was assembled in October 2016, after which time the original gap analysis was finalized and the outcomes for two bridging courses were created. The necessary gaps were covered by outcomes in two courses - the Mechanical Principles bridging course and the Mechanical Practices bridging course. The outcomes for these courses were approved by the working team early in 2017, and then further refined into two course syllabi by the project lead.

A pivotal meeting was held on February 17, 2017, where the team approved the course outlines, and discussed the plan for the delivery mode for the two new bridging courses. The Mechanical Principles bridging course will be delivered in an entirely online format, while the Mechanical Practices bridging course requires verification of online skills. To accomplish this, a two-day intensive hands-on workshop will be required at the host college in addition to the online component. Using innovative 360-degree video instruction to teach the elements of the hands-on skills, this provides students the necessary background to attend the workshop.

The course outlines and the delivery plan will now be shared with the Subject Matter Experts (SME) for the final phase of the project. The SMEs will work with instructional design staff and videographers to develop the full course content, resources and evaluation tools. This will include development of the two-day intensive workshop for the Mechanical Practices bridging course. This detailed design will commence in April 2017, with a completion date by December 2017. This will permit the first delivery of the bridging courses to begin during the spring term in 2018, which will align with larger groups of Electrical Techniques graduates.

For system-wide application, any Ontario College that hosts an Electrical Techniques program can utilize the bridging courses into their respective Electromechanical programs. This type of collaboration and participation is an excellent way to create wonderful opportunities for students and graduates across the province. Each college may have some specialty content in their respective program that may

require additional bridging if deemed essential, but this should be minimal. The bridge covers all of the necessary elements of the Program Standards published by the Ministry of Advanced Education and Skills Development.