

# LABOUR MARKET INFORMED DEGREE PROGRAM CREATION AND CONTINUOUS IMPROVEMENT



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## SUMMARY

Conestoga College, in Ontario, Canada, integrates labour market information both into the degree program development process as well as throughout the lifecycle of the program. The Degree Quality & Accreditation department provides support in developing, under the direction of academic areas, both 3 and 4-year degrees. In addition, the department supports the on-going continuous improvement (including maintaining industry and academic alignment) throughout the lifecycle of the degree. Labour market information is a key driver in both the development and ongoing maintenance of degree programs at Conestoga.

Labour market information is incorporated through a variety of resources and received from several stakeholders. The Degree Quality & Accreditation department works collaboratively with stakeholders and program teams adhering to the established policy framework to include and incorporate labour market information with a focus on job readiness. This involves program changes based on responding to industry, academic advances, student feedback, and program KPIs. The main initiatives that incorporate labour market information include:

- New Program Creation
- Program Development Advisory Committees/ Program Advisory Committees
- Focus on Work Integrated and Applied Learning
- Faculty Experience
- Program Renewal
- Annual Program Reflection system (APR)

## CONTEXT

Conestoga College was established in 1967 and is one of 24 Colleges of Applied Arts and Technology (CAAT) in Ontario. CAATs are publicly funded colleges that traditionally focus on offering post-secondary education to meet the needs of employees and employers in a changing work environment. All CAATs are required to follow legislation laid out by the Province of Ontario through the Ministry of Colleges and Universities (MCU). CAATs are authorized to deliver baccalaureate degrees under the Postsecondary Education Choice and Excellence Act, 2000 (PSECE). The Post-secondary Education Choice and Excellence Act, 2000 established the Postsecondary Education Quality Assessment Board (PEQAB), whose mandate is, upon recommendation from the Minister, to review applications to offer degree programs and to make a recommendation whether to approve the program to the Minister based on the information provided by the applicant.

Conestoga College aims to develop and amend programs to ensure alignment with the legislative framework and offer comprehensive and in-demand degree programs. The Ontario Qualifications Framework (OQF) establishes an overarching quality standard, regardless of the post-secondary institution type, in offering different credential levels in Ontario. The OQF outlines different learning outcomes based on various credential levels offered in Ontario. In adhering to the OQF, Conestoga ensures it meets or exceeds these benchmarks/standards, which are discussed in more detail in the implementation portion of the case study.

Conestoga is one of Ontario's fastest growing colleges and a leader in polytechnic education, serving approximately 27,000 registered full-time students through campuses and training centers in Ontario.



## METHODOLOGY AND IMPLEMENTATION

Conestoga College has ensured degree program relevancy to labour market needs through a variety of processes. These include, but are not limited to:

- Assessment of labour market information during program development phase
- Ongoing engagement with industry and employers through Program Advisory Committees
- Imbedding data related to labour market within the Annual Program Reflection process
- Highlighting labour market data during degree renewal where major program updates will occur

Degree Quality & Accreditation Department: The Degree Quality & Accreditation department supports the development, maintenance and review of degree programs at Conestoga College. Since the role of Degree Quality & Accreditation is focused on degree-level programs, the scope of this case study is focused on the Bachelor and Honours Bachelor degree level. Conestoga currently offers 19 degree programs through Conestoga's different academic schools, including the Schools of Applied Computer Science & Information Technology, Business, Community Services, Creative Industries, Engineering & Technology, and Health & Life Sciences. Additionally, we continue to develop additional degree programs.

Proposing a New Program – Labour Market Information: Labour market information is a key component to both the creation of new degree programs as well as when renewing programs during the ministerial consent cycle. When a potential new degree offering is in the ideation stage, the Degree Quality & Accreditation department works with Conestoga’s Institutional Research team to identify current labour market demand for the skillset and career opportunities of future graduates. This process is completed by utilizing National Occupational Classification (NOC) codes, which is Canada’s national system for describing occupations. NOC codes are selected based on the potential future careers proposed by the potential program. The Institutional Research Department at Conestoga uses the NOC codes to create the Labour Market Report (LMR). The LMR provides information such as:

- Number of programs at Conestoga College aligned with the identified NOC codes
- Estimated new local grads over the next seven years
- Local employment count in an identified year
- Projected change to local employment opportunities in the next ten years, and number of unique job postings aligned with the identified NOC codes within the past year



The modeling included in the LMR is generated by an analyst platform that Conestoga utilizes, called the Economic Modeling Specialists International (EMSI). The program team utilizes the information in the LMR to establish a business case and demand for this type of degree program in the workforce.

Once sufficient information has been gathered to establish the viability and workforce demand of a proposed program, the program goes through an internal approval process at Conestoga College ensuring alignment across academic schools and internal stakeholders. Once receiving approval, the Degree Quality & Accreditation department works with the program team to move onto the next stage of program development by establishing a Program Development Advisory Committee (PDAC).

Program Development Advisory Committee and Program Advisory Committee Roles and Process: The PDAC is comprised of internal staff, faculty, industry experts, and external academics within the relevant field of the proposed program. These experts can include external academics and local employers who provide valuable feedback on the proposed program design. Over multiple meetings, the Degree Quality & Accreditation department and Chair of the Academic School present program information to the PDAC for endorsement. Elements of endorsement include: program and credential name, program learning outcomes, curriculum design, co-operative education model, and graduate potential for employability. By aligning all of the above elements with the industry and academic experts that comprise the PDAC, the College ensures that any programs being developed meet the needs of employers and adapts the changing demands of the particular industry and skills required by the workforce.

Once programs have received ministerial consent, the PDAC changes into a Program Advisory Committee or PAC. Where the PDAC's role is to advise on the creation of a degree program, PACs are established to continue to provide feedback on the program as it is being delivered. In addition to industry partners and academic experts who attend the meeting, students often attend to describe their experiences at different levels within the program. PAC members provide advice on topics such as: program design, subject matter/topic relevance, changes/trends in business and industry affecting programs of study, student and graduate success, technological implications of changes/trends, and employment prospects. Each program PAC meets semi-annually, and the minutes of each meeting are saved to help maintain institutional memory of all feedback and proposed potential changes. This process ensures the program continues to evolve to meet the demand of the labour market.





Both the PDAC and PAC focus on utilizing the feedback of industry and employers to align program design elements. This includes curriculum content, delivery sequence, and program learning outcomes. These elements are designed and amended to meet the needs of local employers and to focus on students who graduate job ready, with skills and credentials that are in-demand. The advisement of employers on the PDAC and PACs is invaluable and provides a direct link to industry and insight into the knowledge, skills and attitudes that students and graduates require.

Focus on Work Integrated and Applied Learning: Conestoga delivers an applied learning experience within all degree programs, offering a co-operative education and/or work integrated learning opportunity as part of the design. The Co-operative Education, Career Services & Work Integrated Learning department works alongside the Degree Quality & Accreditation department and program chair to design a program that maximizes the ability for students to meaningfully participate in their field prior to graduation. In Conestoga's degrees, students will have the opportunity to work and learn in at least one paid co-op work term, amounting to no less than 420 hours. Many of Conestoga's degrees include more than one work term, allowing for a student to deeply engage with one employer, or to experience multiple work settings. Some of Conestoga's degrees also include Field Placement courses, which integrate a few hours of engagement within a work setting into a course, allowing for students to truly learn how theory applies to practice. By providing opportunities for students to participate in an applied workforce setting, students are able to develop on the job skills and apply theoretical concepts that are taught in the program. Throughout the work integrated learning or co-operative education semester, students are able to ask questions and receive support from faculty as well as college staff, and are required to complete academic reflective assignments related to their experience. Following this semester, students return to the classroom and have time to reflect on their experiences, ask additional questions, and further develop skills that are required to be successful in their field.

Both students and employers are surveyed following the work integrated learning/co-operative semester. This survey enables employers to provide feedback on the job readiness of students, skills, and employability of students, as well as allows students to outline their experience with different employers. This information creates a feedback loop to further bolster Conestoga's approach to program continuous improvement and ensures that students are being well prepared to join the workforce prior to graduation.

Faculty Experience: Conestoga College values both academic qualifications and industry experience when selecting individuals to hire into faculty positions within our degree programs. When recruiting, potential faculty are assessed on a program-by-program basis ensuring that the recruitment is meeting the needs of the specific course, program and/or School. As Conestoga's degrees focus on applied learning, faculty with industry and professional experience are highly valuable. In this way, faculty provide another industry touchpoint and provide 'real world' exemplars for the students to consider in their curriculum. Many faculty continue to work or consult while also teaching Conestoga's students.

## ANALYSIS AND EVALUATION

Annual Program Reflection (APR): The annual program reflection (APR) is the main strategy used by program teams to continue to evaluate and assess their program. This reflection is completed every spring by each program team using an online tool to guide the program team in reflecting on various data points related to allow for a holistic discussion of the program. Some of the data elements that inform this reflection include:

- Program learning outcomes
- Current program design
- Accreditation/Specialty Certifications
- PAC meeting minutes
- Program Quality Indicators



This information is presented within an intuitive application and allows the program team to effectively evaluate their program and to discuss potential improvements that will improve student learning and job readiness. Program teams are invited to consider graduate preparedness throughout their Annual Program Reflection meetings. This includes reflection on PAC feedback, Co-op work term surveys, and student feedback that the faculty consider in relation to the program design and program learning outcomes.

As noted, student feedback is considered within the APR. Key Performance Indicators (KPIs) are an important piece in assessing the program. In 2022 a new province-wide Ontario Student Experience Survey was implemented. This new survey was developed by college representatives from across the province with leadership from Colleges Ontario, an advocacy group for Ontario's 24 colleges. The OSSE reports on data garnered from surveys completed by students, graduates, and employers providing feedback on various elements of the program. A snapshot of some of survey question content includes:

**Students**

- *Overall teaching and learning experience*
- *Program has improved the ability to practice professional behaviours*
- *Satisfaction level that the program has provided the knowledge and skills that will be useful in their career*
- *Quality of the work integrated learning opportunities*

**Graduates**

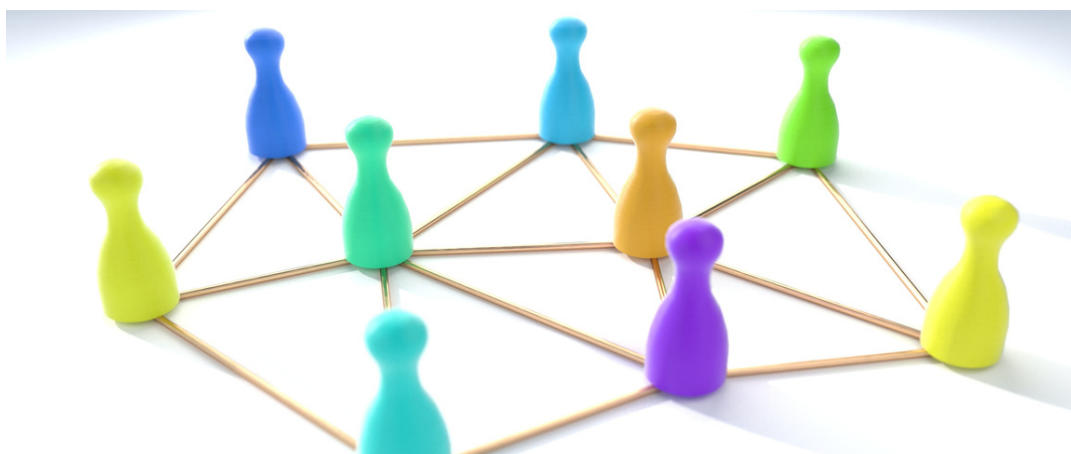
- *Employment rate and employment rate in their field of study*
- *Skills at the college helped secure employment*
- *Overall satisfaction of college preparation for the workplace*
- *Program recommendation*

**Employers**

- *Employer satisfaction rate*

All of the survey questions are aggregated into various Key Performance Indicators to allow consistent and efficient analysis of the feedback we are receiving from each group.

To conclude an APR, the module triggers the program team to develop an action plan for the upcoming year. This feature allows the team to track their progress and assign responsibility to make any changes or adjustments. This action plan is available during the subsequent APR to ensure adequate changes were made.





**Accreditor Alignment:** Both during program development as well as on an on-going basis, program team assesses current or future opportunities for accreditation/specialty certification alignment. The Degree Quality & Accreditation department works with the program team to align the program with any industry certifications or accreditation. Many of Conestoga's degrees are aligned with national or international accreditors, providing another layer of recognition for the student. As an example, Conestoga's Engineering degrees are the first college-delivered accredited Engineering degrees in Ontario, accredited by the Canadian Engineering Accreditation Board. This allows students to graduate from an industry accredited program or to pursue a certification based on the experience and information gained from their program. This further enhances student readiness to enter the workforce in their field.

**Program Renewal:** Degrees are required to undergo a major program review every 5 to 7 years, mandated by the legislative processes outlined above.

During this major program review, the Degree Quality & Accreditation department requests an updated Labour Market Report from Conestoga's Institutional Research Office, to be used in conversations with the program team about any curricular changes that should be considered based on current labour market information, Program Advisory Committee feedback, KPI surveys, trends in academia and other key data points. The renewal process provides an opportunity for a program to consider adjustments to the program design with the intention of maintaining currency and maximizing value for students and their ability to enter and be successful in the workforce. As part of the renewal process, a degree program is reviewed by the Postsecondary Education Quality Assessment Board (PEQAB) as well as two subject matter experts (SME) from an external College or University. This ensures that, for Conestoga's degrees, the renewal process is not simply an internal review, but rather, one with externally mandated standards and expectations a degree program must meet. Meeting these standards, as assessed by PEQAB and the SMEs, allows for continued delivery of a degree.

## REFLECTIONS & CONCLUSIONS

Conestoga College values the integration of labour market information into the development and continuous improvement of our degree programs. Operating within a framework designed to focus on employability of graduates, Conestoga has implemented processes to meet quality requirements as well as to provide an efficient and effective method for the program to respond to any industry or graduate skillset changes.

However, a challenge of engaging so many avenues for feedback during the development and delivery of a degree can create competing priorities across the various stakeholder groups. With the varied membership and expertise of the PDACs/PACs, the individual interests of students, and the specialization of faculty, there is a need to balance each specific lens in assessing and analyzing potential changes to the program. By keeping the graduate at the core of all of Conestoga's activity, we strive to achieve Conestoga College's Mission Statement: to create the environments for students to realize their potential and graduate as individuals who can make meaningful contributions to their communities.

## REFERENCES AND HYPERLINKS

- [Program Advisory Committees Policy](#)
- [Program Advisory Committee Procedure](#)
- <https://www.conestogac.on.ca/about/college-initiatives/quality-at-conestoga>
- <https://www.ontario.ca/page/ontario-qualifications-framework>
- <http://www.pegab.ca/index.html>
- <https://www.tcu.gov.on.ca/pepg/audiences/colleges/>



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