

## Engineering Education Task Force Final Report

**Mandate:** to create a research report on the current reality and future possibilities in engineering education, and to highlight key considerations from this research for the FEA Steering Committee

*“Engineering education is changing in response to the world around us and to the changing realities of the practice of professional engineering; engineering education accreditation must change as a result.”*

As a result, the Task Force suggests considering:

- Greater collaboration with HEIs in the development and evolution of criteria, policies, and procedures.
- Reduce micro-level accounting of many aspects of the submission.

Trend #1: Flexible and Assessed Pathway	
Findings	The Task Force suggests...
<ul style="list-style-type: none"> <li>• <b>Flexible entry and bridging pathways for students:</b> transfer agreements, multiple pathways, eliminating some pre-requisites</li> <li>• <b>Competency based assessment:</b> assessment of core concepts, increasing use and emerging expertise (GAs and competencies)</li> <li>• <b>Micro-credentials:</b> funding from governments and increasing development of offerings</li> </ul>	<ul style="list-style-type: none"> <li>• Not relying on micro-level accounting of hours</li> <li>• Reviewing how exchanges, transfer agreements and multiple pathways are addressed in accreditation</li> <li>• A continued focus on outcomes / graduate attributes</li> <li>• Not imposing constraints on micro-credentials</li> </ul>
Trend #2: Open and Inclusive Culture	
Findings	The Task Force suggests...
<p><b>Equity, diversity and inclusion:</b> programmatic, structural and cultural changes</p> <p><b>Indigenization:</b> ethical imperative to address TRC, inclusion, reconcile and decolonization all being developed and added to programs</p> <p><b>Well-being and whole student:</b> consideration for students’ lives outside of academia, workload and well-being all considered in research and program development</p>	<ul style="list-style-type: none"> <li>• Addressing how accreditation can keep up with and reflect system-wide transformational changes regarding equity, diversity, inclusion, Indigenization, and student well-being</li> </ul>
Trend #3: Student-Centered Engagement with Complex Problems	
Findings	The Task Force suggests...
<p><b>Integrating behavioural and technical skills:</b> development of technical, social, ethical and organizational skills common in programs</p> <p><b>Experiential learning:</b> range of opportunities for real-world problems, flexible course credit for extra-curricula experiences</p> <p><b>Project/problem-based learning:</b> self-directed learning to solve projects within classes, years and programs</p>	<ul style="list-style-type: none"> <li>• Focusing on outcomes gained through the experiences</li> <li>• Looking at how other systems have evolved regarding the trend of integrating both technical and behavioural skills to solve complex problems, while addressing flexibility and inclusivity</li> <li>• Considering how accreditation can allow for a wider variety of learning opportunities including split cohorts and multi-instructor courses</li> </ul>