2024 CEEA-ACÉG Institute for Engineering Teaching (IET) Focused Topics Workshops

Saturday, June 15, as part of CEEA-ACÉG Conference

The CEEA-ACÉG Institute for Engineering Teaching (IET) is pleased to announce the introduction of two new focused topics workshops. Everyone is welcomed, but the focused topics workshops are intended for those with classroom teaching experience and wishing to enhance the design and delivery of their courses. The workshops provide excellent opportunities for professional development and networking with other engineering educators from across the country (and from outside Canada). The workshops are offered in person on Saturday, June 15 in conjunction with the CEEA-ACÉG Annual Conference in Edmonton, Alberta. The details of this year's focused topics workshops are provided below.

- **Morning Workshop (9 AM – 12): Effective, Efficient, and Ethical use of Generative AI in the Engineering Classroom.** Artificial Intelligence (AI) is the latest disruptive technology to impact higher education, promising new opportunities but also introducing uncertainty and trepidation. In this interactive workshop, you will use foundational frameworks—including constructive alignment, deliberate practice, and the fraud triangle—to explore the effective, efficient, and ethical use of generative AI. While technology and circumstances change over time, the principles from these frameworks hold true and form the foundation of effective teaching and course design. The session will include hands-on activities exploring how both teachers and students can utilize AI in learning activities and assessments, as well as strategies for reducing inappropriate use of AI. You should bring a laptop computer to the session and have a course (perhaps one you teach or support) and its outcomes. (Facilitators: Nancy Nelson, Pete Ostafichuk, and Chirag Variawa)

- **Afternoon Workshop (1 – 4 PM): An Introduction to Competency Based Assessment.** Competency Based Assessment (CBA) aims to ensure that each student has attained all of the foundational competencies during a course or program. Fitting well with Constructive Alignment, CBA is based on several key principles that ground its methodology including an emphasis on formative assessment. Primary advantages of CBA include more accountability, transparency and perceived fairness. Participants in this workshop will not be presumed to have prior knowledge or experience with CBA. The afternoon will begin with an introduction to the philosophy, motivation and principles of CBA, including discussions of these topics. Then issues of implementation will be highlighted and explored. After that, participants will work on converting a portion of a course (of their choice) into a CBA implementation. This guided conversion activity will be carried out in small groups, with assistance from the workshop facilitators. By the end of the workshop, participants will be able to critically discuss CBA in terms of principle and practice, and they will be able to plan a CBA implementation for one of their courses. (Facilitators: Agnes d'Entremont and Sean Maw).