



UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE & ENGINEERING

Cristina Amon, Dean

MEMORANDUM

2017/18-12

To: All faculty

cc: Chairs and Directors

From: Cristina Amon, Dean

Date: April 12, 2018

Re: Calls for Proposals:

- **Engineering Instructional Innovation Program, and**
- **TEAL Fellows Program**

I am pleased to announce calls for proposals for our Engineering Instructional Innovation Program, now in its fourth round, as well as the second round of the TEAL Fellows Program focused on preparing for the Technology Enhanced Active Learning (TEAL) classrooms in the Myhal Centre for Engineering Innovation & Entrepreneurship (Myhal Centre).

Summary - Engineering Instructional Innovation Program (EIIP)

This program targets projects of larger scope involving the creation or substantial renovation of an undergraduate course, a closely related group of courses, or another type of learning experience. Projects should have the potential to produce significant and sustainable impact on student engagement and learning outcomes, identify measurable results, and include a plan for collecting data on outcomes. Submissions that will result in a course suitable for delivery in the large auditorium of the Myhal Centre are also encouraged.

A short letter of intent must be submitted **by May 18, 2018**. Selected projects will be asked to provide a full proposal including a budget and project plan **by July 9, 2018**.

Summary - TEAL Fellows Program

Applications are being solicited from instructors with a desire to develop expertise in active learning pedagogies; these would be applied to the design or redesign of all or part of an undergraduate or graduate course. Although not all active learning activities are dependent on technology, the new TEAL classrooms in the Myhal Centre provide an ideal physical environment to support this approach to teaching and learning. The successful applicants will be known as TEAL Fellows for the two-year tenure of the award, and will form the core of a community of practice in active learning.

Your submission should describe the basis of your interest in active learning approaches, the concept of how they may be integrated into all or part of a course, and description of the required resources. The application form is due by **May 18, 2018**.

<https://goo.gl/forms/6ljdqRaGdGx83CJf1>

Background

The Faculty of Applied Science & Engineering at the University of Toronto has a wide range of academic programs that are highly diverse in terms of size, scope, and approach to curriculum. The population of students we serve is academically strong and highly motivated. Technology, combined with research on teaching and learning, is substantially reshaping the landscape in higher education and provides opportunities for innovation. There is a growing set of instructional innovation resources, supported through the Centre for Teaching Support and Innovation (CTSI), available to those interested in developing more effective learning experiences for our students. This environment provides a tremendous opportunity to implement instructional innovation and rethink traditional teaching approaches.

Our professors have been recognized for advances in online courses and innovative pedagogies; and we have experimented with inverted classrooms, on-line modules, and other types of technology-enabled teaching and technology-enhanced active learning. We seek to build on this experience by making strategic investments that will lead to better pedagogy and improvements in the learning experience for our students. Our goal is to continue to create a vibrant, relevant, and effective learning experience for our students that prepares them to be leaders in their field and gives them the opportunity to explore the full breadth of their university experience both in and outside the classroom.

The Myhal Centre will provide new opportunities for innovative course delivery approaches. A unique 468 seat interactive lecture hall will be located on floors 1 & 2. This room has seven tiered levels and is equipped with an 18m x 3.4m composite LCD screen. The seating is not the traditional auditorium style seating. Rather, four students sit around fixed tables and can work together as a four-person group. Five TEAL classrooms will be located on the third floor of the Myhal Centre. Four configurations are planned to provide an opportunity to explore the relative advantages of each in supporting active learning approaches and activities:

- Three rooms similar to the current SF3201 style, with high, hexagonal tables seating 6 students each. Two rooms will have 6 tables, one will have 12 tables.
- One room will have 8 standard height tables, 2m in diameter, each seating 9 students.
- One will include 100 moveable chairs with large work surfaces. This room can be divided into two equal sized rooms, each for up to 50 students.

On the third and fourth floors are seven design studios; six seating 36 students and one seating 72 students. These rooms feature rectangular tables with durable butcher block surfaces seating 6 students each. The fourth-floor studios are adjacent to the Light Fabrication Facility and Rapid Prototyping Facility.

Engineering Instructional Innovation Program

Projects may be funded for up to \$50K/year for up to 3 years. Matching funds from the department/unit/institute are welcome. These funds can be used to develop resources, acquire additional assistance (e.g. additional TA support or educational expertise), offset a change in teaching responsibility if it is warranted, and acquire training, equipment and supplies.

Letter of intent - due May 18, 2018

The letter should identify the project leader, and concisely explain the context and vision for the project. A project may involve two or more faculty; at least one of whom must hold a continuing appointment. A short statement on the intended outcomes should be included such that the committee can judge the depth and scope of the potential impact. The letter should also include a preliminary estimate of the time and required funding for the project. The project must be endorsed by the chair(s) or director(s) of the department/institute involved. This endorsement must acknowledge any change in teaching responsibilities if this is part of the project plan.

The selection of projects to be invited to move on to the full proposal stage will be made by the end of May 2018.

Full proposal - due July 9, 2018

The proposal should include a clear timeline and budget for the project. The activities and milestones in the first year of the project should be clearly defined. The budget can include support for TAs or other staff; technology or resource development; and equipment.

The proposal could include an adjustment in the course teaching responsibilities of the project leader if it is warranted by the project plan. In this case, the budget must include funds to contribute towards any costs associated with changes in teaching responsibilities. Preferably a departmental contribution to those costs would also be included; in any event, changes in teaching responsibilities must be acknowledged in the chair/director's endorsement letter.

A plan for professional development (i.e. training) could be included in the project that leaders would draw upon to develop their own capabilities and any training for other staff (e.g. TA training). This plan could include collaboration with CTSI through their Course Design Institute, workshops on pedagogy, programs in support of Scholarship of Teaching and Learning (SoTL) research, etc.

As part of the project activities, project leaders are expected to work with educational developers and other experts (e.g. instructional technology specialists) during the course of the project to measure the impact of the innovation being implemented. This could include a before and after assessment, a cross-over study, or other types of metrics in a way that the impact of the change is benchmarked against existing teaching practices.

The proposal should explain the sustainability of the project beyond the funded period. Selection will be based on the quality of the project and the potential impact on student engagement, learning and experience. Preference will be given to projects which utilize the new facilities in the Myhal Centre (auditorium, TEAL rooms, design studio rooms, and maker spaces).

Proposals should be submitted to the Office of the Dean: director.fase@ecf.utoronto.ca. Decisions are expected to be announced by the end of July 2018.

TEAL Fellows Program

Application form - due **May 18, 2018**

<https://goo.gl/forms/6IjdgRaGdGx83CJf1>

Applicants should describe their motivation for joining the TEAL Fellows and any past experience with innovative instructional practices. The application should include discussion of how active learning pedagogies could be integrated into all or part of a course, and the benefits expected from those changes. Priority will be given to applicants who have taken or will commit to taking the CTSI Course Design/Redesign Institute and to projects that consider how the outcomes of the changes could be assessed.

Applicants may request a variety of supports and services to assist in designing and implementing the active learning pedagogies, including purchase of educational technology (up to \$2,500), support from the Educational Technology Office (up to 50 hours), and funding and training for TAs to assist in implementing these new approaches and activities (up to 100 hours). TEAL Fellows will have priority scheduling in the TEAL classrooms in the Myhal Centre. At the discretion of the unit chair/director, these course development activities may be taken into consideration in evaluating the teaching portion of the applicant's workload. In this case, the support requested must include funds to contribute towards any costs associated with changes in teaching responsibilities. Preferably a departmental contribution to those costs would also be included; in any event, changes in teaching responsibilities must be acknowledged in an endorsement letter from the chair/director, to be included with the application.

The successful applicants will be known as TEAL Fellows, and will form the core of a Community of Practice in active learning. In their first year, Fellows will engage in activities that will provide a background in relevant teaching and learning literature, training in the implementation of active learning approaches, and an opportunity to share progress with other TEAL Fellows. Required activities will include:

- Attendance at 4 workshops
- Individual meetings with the TEAL Fellows Team once per term
- Participation in smaller, working groups comprised of other TEAL Fellows engaged in similar practices
- Reporting on progress at the end of the academic year

In the second year, Fellows will be expected to continue to participate in the above activities and serve in a mentorship role for incoming Fellows.

Proposals should be submitted online at <https://goo.gl/forms/6IjdgRaGdGx83CJf1>. If you have any questions regarding submission of the form, please contact Allison Van Beek at avanbeek@ecf.utoronto.ca.

Decisions are expected to be announced by the end of May 2018.