Opportunity for Engineering Design & Communication Teaching Assistants

Engineering Strategies and Practice (ESP): APS111 Fall 2020 & APS112 Winter 2021
An Innovative First Year Course

Engineering Strategies and Practice (ESP) is an exciting design, communications and teamwork course that offers Teaching Assistants the opportunity to develop their professional skills in facilitation, mentoring, and professional communication by working with first-year engineering students. If these skills are valuable in your future career, then read further.

What is ESP?
ESP is a set of two courses for first year engineering students in the core eight disciplines. The courses use the engineering design process as the context for introducing students to:

- Professional communication skills
- Social impact of technology
- Problem solving
- Independent learning
- Systems thinking
- Team work
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- Team work

This innovative course is designed to foster excitement for engineering through projects that combine creativity and logical methodology. The role of engineering in society, our relationship with the environment, and the potential for our work to be an agent for change, are central themes in this course. Effective use of written, oral, and graphic professional communication is developed throughout the course sequence.

What are the components of ESP?
ESP is a two course sequence: ESP I (APS111) in the Fall term and ESP II (APS112) in the Winter term.

ESP I (APS111)
In the Fall term, students are introduced to the basics of design, professional communication, and team work. In the first two weeks of the term students participate in an engineering-related seminar, in which they discuss the technical, social, political and ethical issues associated with their seminar topic. For the remainder of the term students work on a model design project in teams giving the students a chance to explore the challenges of engineering design. Research and writing, as engineering activities, are introduced. Students learn how to identify social, human, and environmental factors as frontline design considerations.

ESP II (APS112)
In the Winter term, the students work in new teams on a design project for a real client from beginning to end. In lectures the students learn the basics of project management, how to approach a complex problem and break it down into solvable parts, and how to acquire and use information in the design process. Working with a client, the student teams go through a complete design process to develop a solution to meet the client’s need. The result is a design specification document and a final oral presentation.

For more information about the course: http://www.esp.engineering.utoronto.ca/
Teaching Assistants

We will be hiring approximately 30 project/tutorial teaching assistants for Fall and Winter. Each contract is for September 2020 to April 2021 and pays approximately 151 hours at the current rate of pay in accordance with CUPE 3902 Unit 1. We are looking for teaching assistants from a wide range of disciplines. They should have knowledge, enthusiasm and passion for the engineering profession and understanding of the engineering design process; have good facilitation skills, and excellent communication skills. A high degree of confidence in the ability to advise on and assess writing is required. Industrial experience, particularly in technical communication, project management or a supervisory role, is helpful.

Each TA supervises a section of approximately 30 students (approximately 6 teams). Each TA will schedule with each team a weekly 30-minute online meeting in the Fall. Meetings in the Winter are to be determined. There is some flexibility to accommodate your availability.

In the Fall term, the TA is expected to become actively involved with students who are working through a model design project. This includes working with student groups on team formation, brainstorming facilitation, team decision making, and writing during the meetings. TAs also mark a number of written assignments during the term. All TAs are required to attend benchmarking sessions with the Communication Coordinator prior to marking each assignment. After marking is completed, the TAs are required to run assignment debriefing sessions with the students when returning the marked assignments.

In the Winter term, TAs work with a new section of student teams. The student teams develop a full design for an outside client. TAs consult with the teams, help them with the design process, provide counselling on their written work, and mark written assignments. As in the Fall, attendance at assignment benchmarking and debriefing sessions are required in the Winter.

Course delivery, duties, and meetings in the Fall are entirely online. In the Winter, the course and duties may be offered online, in-person or a hybrid of both, and that the decision about the delivery will be made/communicated by the University at a later date.

In both terms, there are mandatory weekly teaching team meetings (Mondays 10:10am-11:00am) with approximately 60 teaching team members (Administrative Staff, Coordinators, Lecturers, Communication Instructors, Engineering Managers, TAs, etc.) to discuss how the previous week went, what is planned for the following week, what is being covered in lectures, and discuss any problems that may have arisen.

There will be paid mandatory TA training sessions at 3pm-5pm Toronto Time on Mon August 24, Thu August 27, Mon August 31, and Thu September 3. The training you receive for this course, and the experience of working with ESP student teams, is an excellent opportunity to improve and practice your professional skills in the areas of facilitation, mentoring, and professional communication.

Successful candidates must be available for the weekly Monday meetings in Fall and Winter, and all the training.

If you are interested in this opportunity, please complete the following application steps:

Before the application deadline:

1) Fill out the online application form.

2) Email your cover letter and resume as a single PDF file that includes your first and last names at the beginning of the file name (e.g. Joseph Jones 2020) to Ms. Phuong Huynh, ESP Course Administrator, at: esp@engineering.utoronto.ca

In addition to the above:

3) Complete the 30-minute sample marking exercise that will be emailed to you on Tue July 21 at 12pm Toronto Time or on Wed July 22 at 10am Toronto Time according to your choice as indicated on the application form.


If you have any questions, you’re welcome to contact the ESP Office at: esp@engineering.utoronto.ca.
If during the application and/or selection process you require accommodation due to a disability, please contact:

esp@engineering.utoronto.ca

This job is posted in accordance with the CUPE 3902 Unit 1 Collective Agreement. The Departmental Hiring Policy is available in the Department office and in the CUPE Local 3902 office. In accordance with the Employment Equity Policy, the University of Toronto encourages applications from qualified women and men, members of visible minorities, aboriginal peoples, and persons with disabilities.