

# **Opportunity for Engineering Design & Communication Teaching Assistants**

Engineering Strategies and Practice (ESP): **APS111 Fall 2024 & APS112 Winter 2025**

*An Innovative First-Year Course*

Engineering Strategies and Practice (ESP) is an exciting design, communications and teamwork course at the University of Toronto's St. George campus 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
- Teamwork

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 teamwork. 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 at least 18 tutorial teaching assistants for Fall and Winter, at the CUPE 3902 Unit 1 hourly rate of pay. Fall term contract: 80 hours, September 2 to December 30, 2024 & Winter term contract: 70 hours, January 2 to April 30, 2025. 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.

The course has 1000+ students. Each TA supervises a section of 32-36 students (6 teams) during tutorials held once per week. There is some flexibility in exactly which tutorial day and timeslot you are assigned, to accommodate your availability. The tutorial day/time in the Fall is different from the Winter.

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

For both terms, TAs are expected to support invigilating in-person assessments (the Fall quiz and Winter midterm) and provide in-person support during help sessions held occasionally during lecture.

Tutorials for Fall and Winter are planned to be in-person, unless there are changes to health policies that prevent in-person course delivery. Any changes to the course delivery (in-person, online, or a hybrid of both), will be communicated by the University at a later date.

In both terms, there are mandatory weekly teaching team meetings on Mondays 10 am-11 am with approximately 70 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. These meetings are in-person and attendance is mandatory.

There will be paid in-person mandatory TA training sessions at the end of August/beginning of September.

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

Before the application deadline:

- 1) Fill out the MS office form: <https://forms.office.com/r/t7cMX02200>

In addition:

- 2) Qualified candidates will complete a 30-minute sample marking exercise that will be emailed on Monday June 10th, 2024.

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Job posted on **Friday May 3<sup>rd</sup>, 2024**, and closes on **Monday, June 3<sup>rd</sup>, 2024**, at 4:00 pm EDT.

Please note the following:

- Previous experience is the most relevant of the Hiring Criteria listed below.
- If you have any questions, please contact the ESP Office at: [esp@engineering.utoronto.ca](mailto:esp@engineering.utoronto.ca).
- If during the application, hiring process, and/or throughout the duration of the appointment you require accommodation due to a disability, please contact: [esp@engineering.utoronto.ca](mailto: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 all qualified applicants to apply.

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from racialized persons / persons of colour, women, Indigenous / Aboriginal People of North America, persons with disabilities, LGBTQ2S+ persons, and others who may contribute to the further diversification of ideas.

Candidates who are members of Indigenous, Black, racialized and LGBTQ2S+ communities, persons with disabilities, and other equity seeking groups are encouraged to apply, and their lived experience shall be taken into consideration as applicable to the position.

The University strives to be an equitable and inclusive community, and proactively seeks to increase diversity among its community members. Our values regarding equity and diversity are linked with our unwavering commitment to excellence in the pursuit of our academic mission. The University is committed to the principles of the Accessibility for Ontarians with Disabilities Act (AODA). As such, we strive to make our recruitment, assessment and selection processes as accessible as possible and provide accommodations as required for applicants with disabilities. If you require any accommodations at any point during the application and hiring process, please contact [uoft.careers@utoronto.ca](mailto:uoft.careers@utoronto.ca). During employment, to request

accommodation from the University, contact the supervisor or department chair and/or Health & Wellbeing Programs & Services at [hwb@utoronto.ca](mailto:hwb@utoronto.ca). For more information about accommodations at U of T, please visit our Accommodation webpage.

Duties of this position shall be performed at the campus on which the position is located. Where the duties are intended to be performed at another location, such other location will be specified in the posting.

The Hiring Criteria for Teaching Assistant positions are academic qualifications, the need to acquire experience, previous experience and previous satisfactory employment under the provisions of this Collective Agreement.

This job is posted in accordance with the CUPE 3902 Unit 1 Collective Agreement.

Positions posted here are open to Graduate Students in the School of Graduate Studies, Postdoctoral Fellows, and Undergraduate Students in the University of Toronto.

Preference in hiring shall be given to Graduate Students enrolled in the School of Graduate Studies of the University of Toronto or those who have made application to be enrolled in the School of Graduate Studies of the University of Toronto