



DEPARTMENT OF  
**Mechanical and  
Materials Engineering**

**TEACHING FELLOW POSITION AVAILABLE  
Academic Year 2023-24**

**Posting Date:** June 1, 2023

**Closing Date:** July 4, 2023

1 position/1 section available, in person

The Department of Mechanical and Materials Engineering in the Faculty of Engineering and Applied Science at Queen's University invites applications from suitably qualified candidates interested in teaching the following undergraduate course in the 2023-24 session.

The course will be taught in person with an expected enrollment of approximately 80 students. This offering will be aimed at the students enrolled in the Mechatronics and Robotics Engineering (MREN) Program. The successful applicant will have 100% percent responsibility for this course. Graduate teaching assistants will be assigned to assist with labs and marking.

## **MECH 350 – Automatic Controls**

September 2023 – December 2023

### **Qualifications:**

Currently enrolled in the PhD program at Queen's in Mechanical Engineering or a related field, expertise in the field relevant to the course, and appropriate teaching experience. Previous educational background and/or experience must be suited to teaching the course described below. Candidates must have excellent communication and presentation skills as proven with prior experience. Prior teaching experience in a University environment, specifically large lecture-based engineering courses would be an asset. Registration as a Professional Engineer, or eligibility to acquire registration in Canada, would be a strong asset.

### **Course Description and Teaching Requirement:**

#### **MECH 350 Automatic Controls F | 3.5**

An introduction to the basic principles of modelling, analysis and control of dynamic systems. Topics include: modes of control, principles of feedback, Laplace and transfer functions, transient response of first and second order systems, stability criteria, root locus, Bode and frequency response. After completion of this course a student will be able to design a control system by classical techniques and will have an awareness of modern techniques.

(Lec: 2.75, Lab: 0.25, Tut: 0.5)

Academic Units:

Mathematics 0 Natural Sciences 0 Complementary Studies 0 Eng Science 23 Eng Design 19

Prerequisites: [MTHE 225 \(MATH 225\)](#) or [MECH 203](#), and [MECH 328](#) or [ENPH 211](#) (PHYS 211) and [ENPH 225](#) (PHYS 225), or [MTHE 235](#) and [MECH 228](#) Corequisites: Exclusions:

Program and Course Symbols and Codes can be found at <https://calendar.engineering.queensu.ca/>

Fall term classes begin September 5, 2023 and end December 5, 2023 while the examination period ends on December 21, 2023. Grading and final mark reconciliation may extend into the next month.

The University invites applications from all qualified individuals. Queen's is strongly committed to employment equity, diversity, and inclusion in the workplace and encourages applications from Black, racialized/visible minority and Indigenous/Aboriginal people, women, persons with disabilities, and 2SLGBTQ+ persons. All qualified candidates are encouraged to apply; however, Canadians and permanent residents of Canada will be given priority.

Teaching Fellows at Queen's University are governed by the *Collective Agreement* between the Public Service Alliance of Canada (Local 901, unit 1) and the University, which is posted at:

<https://www.queensu.ca/facultyrelations/psac-901-1-Overview>

To comply with Federal laws, the University is obliged to gather statistical information about how many applicants for each job vacancy are Canadian citizens/ permanent residents of Canada. Applicants need not identify their country of origin or citizenship, however, all applications must include one of the following statements: I am a Canadian citizen/permanent resident of Canada; OR, I am not a Canadian citizen/permanent resident of Canada. Applications that do not include this information will be deemed incomplete.

The University will provide support in its recruitment processes to applicants with disabilities, including accommodation that takes into account an applicant's accessibility needs. If you require accommodation during the interview process, please contact Gabrielle Whan, [gabrielle.whan@queensu.ca](mailto:gabrielle.whan@queensu.ca)

Applications should include a complete and current curriculum vitae, a statement of teaching experience, the names and contact details of two referees who may be contacted, and any other relevant materials the candidate wishes to submit for consideration. Applications can be submitted to the Mechanical and Materials Engineering Appointments Committee by email to Gabrielle Whan, Department Manager at [gabrielle.whan@queensu.ca](mailto:gabrielle.whan@queensu.ca) or at the address below. Applications should arrive no later than **July 4, 2023 at 5:00 pm.**

Mechanical and Materials Engineering Appointments Committee  
c/o Gabrielle Whan  
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