The Department of Electrical and Computer Engineering at Queen’s University requests applications from suitable qualified candidates interested in teaching the following undergraduate course in the 2020-21 academic session.

Summer Term Course: May 1, 2021 – July 31, 2021

Anticipated course enrolment: 50

Course Description

**ELEC 280 Fundamentals of Electromagnetics**

**Description**

Lecture: 3  
Lab: 0.25  
Tutorial: 0.5

A study of the fundamental aspects of electromagnetic fields. The following topics are covered: the Maxwell’s equations and the 3-dimensional wave equation for transmission lines; vector analysis, including orthogonal coordinate systems, and the calculus of field quantities; electrostatic fields including the concepts of electric potential, capacitance, and current and current density; magnetostatic fields including inductance; time-varying fields and the complete form of Maxwell’s equations; basic transmission line phenomena including steady-state sinusoidal behaviour and standing waves, transient performance and impedance matching.

**Academic Units:**

- Mathematics 0
- Natural Sciences 27
- Complementary Studies 0
- Engineering Science 18
- Engineering Design 0

**PREREQUISITE(S):** APSC 112 or APSC 114, APSC 171, APSC 172, APSC 174

**Credit Breakdown**

Lecture: Yes  
Lab: Yes  
Tutorial: Yes

**Qualifications:**

Minimum of a M.A.Sc. in Engineering or a related field, or a BASc in Engineering with extensive practical experience in engineering communications. Previous teaching experience at the University level will be preferred. Candidates should have excellent communication and presentation skills. Preference will be given to candidates who are registered as professional engineers in the province of Ontario.
The successful applicant will have 100 percent responsibility for the course and will be required to convert course materials to an accessible online format satisfactory to the Department Head.

Please be advised that due to the current COVID-19 Situation, the University currently requires all non-essential services staff to work remotely. Until the requirement to work remotely is lifted, you will be required and must be able to work from home, including having a high-speed internet connection.

Queen’s University is committed to employment equity and diversity in the workplace and welcomes applications from women, visible minorities, aboriginal people, persons with disabilities, and persons of any sexual orientation or gender identity. All qualified candidates are encouraged to apply; however, Canadians and permanent residents of Canada will be given priority. Academic staff at Queen’s University is governed by a collective agreement between QUFA, QUFA and Queen’s University.

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 Mary Gillespie, mary.gillespie@queensu.ca.

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.

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 relevant other materials the candidate wishes to submit for consideration. Applications can be submitted to the ECE Appointments Committee by email to Mary Gillespie at mary.gillespie@queensu.ca. Applications should be received by email no later than March 5, 2021.

Electrical and Computer Engineering Appointments Committee
C/o Mary Gillespie, Administrative Assistant
Department of Electrical and Computer Engineering
Walter Light Hall, Room 416
19 Union Street
Queen’s University
Kingston, ON   K7L 3N6
Tel.:  613-533-6000 ext.75344        Fax: 613-533-6615