The Department of Electrical and Computer Engineering in the Faculty of Engineering and Applied Science at Queen’s University requests applications from suitably qualified candidates interested in teaching the following undergraduate course in the 2023-2024 session.

**Winter Term Course: January 1, 2024 – April 30, 2024**

**MREN 178  Data Structures and Algorithms**

Units: 4.00

This course introduces fundamental structures and algorithms for storing, managing, manipulating and analyzing data. Topics covered include structures, such as multidimensional arrays, linked lists, stacks, queues, deques, asymptotic notation, hash and scatter tables, trees and search trees, heaps and priority queues, graphs, and algorithms such as recursion, branch-and-bound methods, searching, sorting, and probabilistic algorithms. Microcontroller-based laboratory exercises will explore applications of data structures and algorithms, using examples drawn from mechatronics and robotics engineering.

(Lec: 3, Lab: 0.5, Tut: 0.5)

**Requirements:** Prerequisites: **APSC 143** or **MNTC 313** Corequisites: Exclusions: **ELEC 278** or **CISC 235**

**Offering Term:** W

**CEAB Units:**

Mathematics 12
Natural Sciences 0
Complementary Studies 0
Engineering Science 24
Engineering Design 12

Anticipated course enrolment: 86

**Qualifications:**

Minimum of a M.A.Sc. Degree in Engineering or a related field, OR a B.A.Sc. Degree in Engineering with extensive practical experience in engineering communications. Registered as a Professional Engineer (or an Engineer in Training) in the Province of Ontario. 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.

**Teaching requirement:**

The above advertised course will be taught on campus. Winter term classes begin on January 08, 2024.

Queen’s University is committed to employment equity and diversity in the workplace, and it 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 a collective agreement between Public Service Alliance of Canada (PSAC), and Queen's University.
Link: http://www.queensu.ca/humanresources/employees/unions.html

Prior to May 1, 2022, the University required all students, faculty, staff, and visitors (including contractors) to declare their COVID-19 vaccination status and provide proof that they were fully vaccinated or had an approved accommodation to engage in in-person University activities. These requirements were suspended effective May 1, 2022, but the University may reinstate them at any point.

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 ECE Reception. Link: ecerecpt@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 at the address below, or by email to ECE Reception. Link: ecerecpt@queensu.ca

Applications should be received no later than October 31, 2023.

Electrical and Computer Engineering Appointments Committee
Department of Electrical and Computer Engineering
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