

## Mechanical and Materials Engineering

# STEPHEN J.R. SMITH FACULTY OF ENGINEERING AND APPLIED SCIENCE AT QUEEN'S UNIVERSITY Term Adjunct Position Academic Year 2024-2025

Posting Date: October 1, 2024 Closing Date: October 30, 2024

The Department of Mechanical and Materials Engineering at Queen's University invites applications from suitably qualified candidates interested in teaching the following core second year undergraduate course in the 2024/25 session.

### MECH 203 Mathematical and Computational Tools for Mechanical Engineers II January 1, 2025 – April 30, 2025

#### Qualifications:

Minimum of M.Sc. in Mechanical Engineering or related field. 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, as well as being capable of working as a member of a teaching team. Previous teaching experience at the University level, specifically large lecture-based engineering courses is considered an asset. Registration as a Professional Engineer, or eligibility to acquire registration in Canada, would be a strong asset.

#### **Course Description:**

Units: 3.50

This course will introduce numerical and statistical methods for the solution of engineering problems, to complement those discussed in MECH 202. The topics of the course will be presented through problems, models and applications relevant to the Mechanical Engineering Program. On completion of the course students will be able to: solve linear systems of equations; analyze random processes; perform local optimization and hypothesis testing; interpolate and fit discrete data sequences. Students will solve problems analytically and computationally in an active learning, tutorial environment. The course will include a design project.

K3.5 (Lec: Yes, Lab: No, Tut: Yes)

Requirements: Prerequisites: MECH 202 Corequisites: Exclusions: MTHE 225, MATH 225 and

MTHE 272 **CEAB Units:** 

Mathematics 31, Natural Sciences 0, Complementary Studies 0, Eng Science 0, Eng Design 11

#### Course Details:

This course involves in-person delivery of one 2-hour active learning session, one 1-hour lecture and one 1-hour tutorial per week for twelve weeks.

#### **Expected Enrolment (subject to change):** 225 students.

The successful applicant will have 100% percent responsibility for this course. Graduate teaching assistants will be assigned to assist with tutorials, labs and marking.

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 people, women, persons with disabilities, and 2SLGBTQ+ persons.

Academic staff at Queen's University are governed by a <u>Collective Agreement</u> between the University and the <u>Queen's University Faculty Association (QUFA)</u>.

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 <a href="mailto:mmeadmin@queensu.ca">mmeadmin@queensu.ca</a>.

In accordance with Canadian immigration requirements, Canadian citizens and permanent residents of Canada will be given priority, including any qualified individuals who have a valid legal work status in Canada. Please indicate in your application if you have a valid legal work status in Canada. Applications that do not include this information will be deemed incomplete. Applications from all qualified candidates will be considered in the applicant pool.

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 MME Appointments Committee at the address below, or by e-mail to <a href="mailto:mmeadmin@queensu.ca">mmeadmin@queensu.ca</a>. Applications should arrive no later than October 30, 2024 at 11:59pm.

Mechanical and Materials Engineering (MME) Appointments Committee Department of Mechanical and Materials Engineering McLaughlin Hall, Room 201 Queen's University, Kingston ON, K7L 3N6 Tel. 613 533-2585