

**Department of Chemical Engineering
Term Adjunct Position
(Co-taught – 50% responsibility)
Academic Year 2024/25**

Posting Date: Thursday, October 3, 2024

Closing Date: Friday, October 25, 2024

The Department of Chemical Engineering at Queen's University invites applications from suitably qualified candidates interested in teaching the following undergraduate course in the Winter session of the 2024-2025 academic year.

**CHEE 331 Design of Unit Operations (Winter 2025)
January 1 to April 30, 2025**

Qualifications:

Candidates must have a minimum of a B.Sc. or B.A.Sc. in Chemical Engineering or a related field. Experience in process design, a minimum of 5 years of industry and/or academic experience. Previous teaching experience with demonstrated student mentoring at the university level will be preferred. Professional engineering licensure in Canada required. Candidates must have excellent communication and presentation skills and be capable of working as a member of a teaching team.

Course Description:

This course is part of the Engineering Design and Practice Sequence. Heat and mass transfer knowledge is applied in the analysis and design of unit operations, including separation processes and heat exchanging equipment. The equilibrium stage concept is used to perform calculations and size separation processes including distillation, gas absorption/stripping and liquid-liquid extraction. Heat transfer processes are taught with an emphasis on the design of various types of heat exchanging equipment, including shell and tube heat exchangers, condensers and reboilers. The chemical process design component of the course involves a series of activities, dealing with the design of separation processes, heat exchanger sizing and design, process hazards analysis, implementation of instrumentation and construction of piping and instrument diagrams. In addition to choosing and sizing unit operations and implementing appropriate process instrumentation, the students will learn to use simulation tools and will incorporate economics, safety, and environmental responsibility in all stages of the design. The course is integrated with CHEE 361 "Engineering Communications, Ethics and Professionalism."

Course Details:

This course is co-taught with 50% responsibility and is delivered through 2 x two-hour lecture period per week and a 1 x two-hour tutorial section.

Expected Enrolment (subject to change): 60 students

The above course will be taught on campus. Winter term undergraduate classes begin January 6, 2025. The candidate will deliver tutorials for twelve weeks and lectures for the last six weeks of the winter term covering heat transfer design and process safety.

COVID 19 On-Campus Requirements

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 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.

Academic staff at Queen's University are governed by a collective agreement between QUFA, and Queen's University.

<https://www.queensu.ca/facultyrelations/qufa/collective-agreements-lous-moas>

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 april.hiles@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 other relevant materials the candidate wishes to submit for consideration.

Applications can be submitted to the Term Adjunct Appointments Committee by e-mailing April Hiles at april.hiles@queensu.ca. Applications should be submitted by midnight EST on October 25, 2024.

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