



Department of Chemical Engineering
Academic Assistant - CHEE 209 Position
Fall 2022

Posting Date: August 19, 2022

Closing Date: August 30, 2022

Applicants are invited to apply for the position of an Academic Assistant for **CHEE 209 Analysis of Process Data**. This is a second-year course for students in engineering. CHEE209 is a large-enrolment foundational course in applied probability and statistics in the undergraduate Chemical Engineering and Engineering Chemistry programs, and Geological Engineering. The material, which covers foundational concepts in probability and random variables, graphical and quantitative exploratory data analysis, statistics and sampling distributions, statistical quality control, inference (hypothesis tests and confidence intervals), and linear regression. The material is presented in an engineering-based context and is delivered in person in lectures and tutorials.

This position is from September 1, 2022, to December 31, 2022, working an average of 9 hours per week (duties may not be spread out uniformly every week). *Note that this position is **not** open to graduate or undergraduate students.*

Qualifications include:

- successful completion of foundational course(s) in applied probability and statistics and ideally additional courses, in an engineering or science-based context
- familiarity and proficiency with statistical software (e.g., JMP, R Studio, Matlab, Minitab)
- strong communication skills and organizational skills
- one or more degrees in engineering and/or science

Working with the faculty instructor, responsibilities of the Academic Assistant include:

- facilitating and helping deliver student tutorials
- coordinating TA responsibilities and activities for the course
- overseeing the course online platform on OnQ and helping to update content
- dealing with student accommodation requests and organization
- helping grade online and in-person quizzes, midterms, and the final exam
- helping schedule and organize quizzes, midterms including arranging proctoring and helping proctor quizzes and midterm
- answering student questions and directing them to the most appropriate resource supports
- assisting with and overseeing tutorials using statistical software (e.g., JMP, R Studio)

Requirements

Knowledge of academic software systems (e.g., Peoplesoft, OnQ) or a demonstrated ability to quickly learn such systems. The person who takes on this position must have good organizational skills and excellent time management skills, as there will be peak periods with many tasks.

This position will report to the course instructor.

Academic Assistants are governed by the *Collective Agreement* between the United Steelworkers and the University. Remuneration is \$29.91/hour plus 7% in lieu of vacation and benefits, in accordance with the *Collective Agreement*. *Collective Agreement* details can be found at:

<https://www.queensu.ca/humanresources/working-queens/unions-and-associations>

Please forward your applications to April Hiles (april.hiles@queensu.ca) in the Department of Chemical Engineering by **August 30, 2022**.

Completed applications should include:

1. CV
2. A paragraph stating why the position is of interest to you and any relevant experience you may have for the position

The Department of Chemical Engineering thanks all applicants for their interest; however, only those candidates considered for the position will be contacted.

Calendar information for the course:

CHEE 209 (F 3-0-0.5 3.5) COURSE DESCRIPTION¹

Statistical methods for analyzing and interpreting process data are discussed, with special emphasis on techniques for continuous improvement of process operations. Topics include: role of data in assessing process operation, identifying major problems, graphical and numerical summaries, principles of valid inference, probability distributions for discrete and continuous data, process capability, comparing process performance to target values, comparing performances of two processes, control charts, and an introduction to linear regression analysis.

Prerequisites: APSC 171 (Calculus I), APSC 172 (Calculus II), APSC 174 (Introduction to Linear Algebra)

(27/0/0/15/0) (Mathematics/Natural Sciences/Complementary Studies/Engineering Science/Engineering Design)

PRE-REQUISITE KNOWLEDGE

This course is designed for learners with background on calculus and algebra.

For more information - <https://chemeng.queensu.ca/undergraduate-studies/curriculum/Course-Pages/chee209.html>