



**The Robert M. Buchan Department of Mining
Graduate Teaching Assistantships
MNTC 314 and MNTC 419
Winter Term 2025**

All graduate students are invited to apply for a Graduate Teaching Assistantship for the winter 2025 term for MNTC 314 – Drilling and Blasting and MNTC 419 - Mine Supervision and Project Management.

Following the Collective Agreement, students who are studying in The Robert M. Buchan Department of Mining will be given preference over students from outside the department.

It is recommended that you read the PSAC Local 901, Collective Agreement for Graduate Teaching Assistants found at:

<https://www.queensu.ca/facultyrelations/psac%20901-1/collective-agreements/MoAs/LoUs>

The posted positions are conditional upon enrollment figures and budgetary approval. Positions will remain posted until they have been filled (no less than 7 business days) from the date of posting and remuneration will be in accordance with the Collective Agreement.

TA assignments could include duties such as leading laboratories, tutoring, hosting virtual office hours, marking of assignments, reports, quizzes, and exams. Due to changes in enrollments, some positions may have their hours adjusted once the semester begins. Any necessary training will be included in the assignment.

It is your responsibility to ensure you make yourself available to complete the TA work. If you are planning on being away from internet access for a significant amount of time during the semester, please indicate this when submitting your application and keep your employment supervisor up to date.

Note that for winter 2025, final exams are scheduled until April 23rd so it is possible that marking may be required right to the end of the month.

As TA-ships do not form part of the funding package for graduate students in The Robert M. Buchan Department of Mining, TA-ships will only be offered as per the criteria outlined in



Second Preference – Group B or to candidates in Group C or D. In addition, we will do our best to match your preference to course offerings.

Second Preference – Group B: for qualified graduate students registered as:

- (i) students in a department or program in which the TA-ship will be offered; or
 - (ii) students in an interdisciplinary program with TA budget resources, and for whom
 - (iii) the TA-ship will not form part of the funding commitment offered by Queen's University;
- or
- (iv) there is currently no funding commitment provided by Queen's University.

Third Preference – Group C: for qualified graduate students that have previously held a TA-ship or TF-ship for the Employer.

Fourth Preference – Group D: for qualified graduate students that have not yet met the criteria as set out in A, B, or C.

Application Process

- Review the list of available TA positions for the Winter 2025 Term.

MNTC - <https://www.queensu.ca/academic-calendar/engineering-applied-sciences/courses-instruction/mntc/>

- Complete the [application form](#). Please note that you are required to upload your CV, cover letter, and transcript **in PDF** in the application form.

Applications will be reviewed at the end of the application period.

Applications are due by 12noon, Thursday, January 16, 2025

Undergraduate Courses

Course Code	Title	Term	Instructor	Estimated Enrollment	# of TA ships and hours	Required Background/Skills	Description
MNTC 314	Drilling & Blasting	W	Dan Laing	30	2 at 30hrs each	Knowledge of the subject	The purpose of the course is to introduce commercial explosives technology and examine blast design and its outcomes. The students will be taught principles of commercial explosives engineering, including detonation theory, calculation of energy and products of detonation, prediction of explosives performance and sensitivity, methods of measuring, predicting and controlling rock fragmentation, throw, damage, vibration, flyrock and air blast and will apply their knowledge to design blasts for open cast and underground operations for both construction and mining applications. Recognizing that drilling is related to blasting, the course will introduce rock breakage by mechanical means as applied to drilling, examine parameters affecting drill performance, and choose drilling equipment for various mining methods.
MNTC 419	Mine Supervision and Project Management	W	Dan Laing	32	2 at 30hrs each	Knowledge of the subject	This course presents an introduction to mine supervision; covering the roles and responsibilities of the industrial supervisor including health and safety; technical skills and knowledge and effective communications with different stakeholder levels from front line workers to senior management. The second part of the course will introduce key concepts related to project management including the role of the project manager, identifying requirements and balancing of competing project constraints which include, but are not limited to, scope, schedule, cost, quality, and risk.