

# University of Victoria

## Posting for CUPE 4163 Specialist Instructional (TA)

**TA-Marker** positions will be solely focused on working within the course instructional team to grade student work. This can include (as examples):

- Generating a grading rubric based on input from the course primary instructor.
- Interpreting a rubric to grade student submissions and to provide concise written feedback.
- Managing grade entry and record keeping in collaboration with the other members of the course's instructional team

**TA-Instructor** positions encompass those of a TA-Marker plus activities that facilitate student learning in the course, including (as examples):

- Assistance generating teaching materials
- Planning and delivery of tutorial or laboratory sessions
- Facilitating student group activities
- Fielding student questions outside of scheduled course meeting times

**Both TA-Marker and TA-Instructor positions require good working knowledge of the course content.** The difference between the positions is that TA-Instructors must expect to engage with students in the course in a face-to-face manner and facilitate student learning through active instruction. **Applicants for TA-Instructor positions must be capable of leading classroom sessions, working face-to-face with students and fielding student questions and sourcing solutions to the problems students present.** T

To qualify for a TA-Instructor position you must:

1. have completed all 4 workshops offered by the Department's Teaching Assistant Coordinator (TAC) – these workshops run in Sep and Jan, **OR**
2. have completed the first two TAC workshops **AND** have your application endorsed by the course's lead instructor – this endorsement will be solicited by the Grad Program Director in the event that TAC workshops 3 and 4 have not been completed. This may result in a request that you meet with the instructor to discuss the position duties and your relevant experience.

Understanding that there is preparatory, and consultation time involved for the responsibilities of a TA-Instructor, the hours allotted for TA-Instructors are higher. TA Instructor positions are set at **70 hours** for the term and a TA-Marker position is **40 hours** for a term. Increases on these nominal values must be requested by the course's lead instructor, and such requests must be justified based on a review of TA responsibilities as recorded in the "TA Checklist of Assigned Duties and Approved Work Schedule" at the start and at the midpoint of the term.

**Both types of positions are available in the courses listed below.** When referring to the criteria listed for each position, please note that TA-marker positions associated with a course have a reduced list of responsibilities (not all of the criteria apply to TA-Marker positions).

**Term of appointment:**

TAs are expected to be available from the beginning of the semester (May 7, 2025) and assist with marking the final examination (exam period is Aug 5-16, 2025).

Hourly Rate: **\$34.72**

**ENGR 141 – Engineering Fundamentals**

Instructor: **M. Reza Pendar**

**Special Skills or Other Requirements:**

- Facilitate student led tutorials by assisting and guiding student groups as required in session
- Be confident public speakers and work with the instructors to develop presentations of the tutorial problem sets
- Mentor 1<sup>st</sup> year engineering students at drop-in seminar sessions
- Work well within a large TA team and independently coordinate tasks with colleagues
- Have excellent interpersonal and communication skills
- Have a good background in statics

**MECH 200 - Engineering Drawing**

Instructor: **V. Ahsani**

**Special Skills or Other Requirements:**

- Excellent interpersonal and communication skills
- Proficiency with SolidWorks
- Solid background in Engineering Drawing and descriptive geometry
- Being familiar with the Engineering Design Process
- Available to supervise SolidWorks labs/tutorials remotely

**MECH 220 – Mechanics of Solids I**

Instructor: **P. Vakiel**

**Special Skills or Other Requirements:**

- position requires experience with ANSYS
- Other position(s) for grading and lab

**MECH 242 - Dynamics**

Instructor:

**D. Constantinescu****Special Skills or Other Requirements:**

- Knowledge of rigid body dynamics and related mathematical background (vector algebra, matrix algebra, coordinate representation of vector equations using matrix notation).
- Knowledge of Mat lab and Simulink (for consulting with students on numerical implementations of solutions to problem sets and marking the project).

**MECH 285 - Properties of Engineering Materials**

Instructor:

**P. Vakiel****Special Skills or Other Requirements:**

- Knowledge of materials' science, preferably from Mech285 course and lab previously taken, or equivalent.
- Excellent communication and organizational skills.
- Requires conducting labs and tutorials, marking labs, assignments and mid-term tests.

**MECH 295 – Engineering Fundamentals**

Instructor:

**M. Reza Pendar****Special Skills or Other Requirements:**

- Candidates must have completed courses in Thermodynamics and Heat Transfer.

**MECH 400B - Design Project**

Instructor:

**C. Bradley****Special Skills or Other Requirements:**

- Technical competency interacting with groups of final year engineering undergraduates.
- The TA **must** be available to attend and participate during the weekly class.
- Excellent communication (oral and written) and organizational skills.
- Must have experience in engineering design and have completed and undergraduate mechanical engineering design course(s).
- Experience with programming, microcontrollers, and machine shop practice.

**MECH 420/563 - Finite Element Applications**

Instructor:

**C. Dennison****Special Skills or Other Requirements:**

- Basic knowledge of finite element analysis
- Some experience with the ANSYS finite element software package

**MECH 421/504 – Mechanical Vibrations**

Instructor:

**K. Ahmadi****Special Skills or Other Requirements:**

- Ideal candidate will have previously taken course or similar experience
- Preferably has been a teaching assistant for the course before

**MECH 430/580 A01 – Robotics**Instructor: **D. Constantinescu****Special Skills or Other Requirements:**

- Ideal candidate will have previously taken course or TA'ed the course
- Two TAs will run all laboratories and mark the lab reports (6 hrs/wk.).
- Two TAs will consult with students on, and develop solutions for and mark, the assignments and the project (4 hrs/wk.).
- TAs should have taken an introductory robotics course (kinematics, dynamics, control), have good knowledge of Matlab (especially the Robotics Toolbox) and Simulink.
- Good knowledge of Matlab Level-2 and C/C++ S-functions is required for the Lab TAs.

**MECH 449 – Fuel Cell Technology**

Instructor:

**J. Lee****Special Skills or Other Requirements:**

- Excellent interpersonal and communication skills
- Being familiar with thermodynamics and chemistry. Knowledge in electrochemistry is an asset.
- Available to attend and moderate one or two online lecture(s) as needed.
- Ability to guide students to provide project direction.

**MECH 450A/580 A05 – Modeling and Simulation of Dynamic Systems**

Instructor:

**F. Firmani****Special Skills or Other Requirements:**

- Ideal candidate will have previously taken course or similar experience
- Excellent interpersonal and communication skills
- Must be able to take initiative and be flexible

**MECH 452/580 A03/BME 452/552 – Microfluidics for Biomedical & Energy Applications**

Instructor:

**M. Akbari****Special Skills or Other Requirements:**

- Previous experience with softlithography and replica molding
- Previous experience working with microfluidic systems
- Knowledge of fluid mechanics and heat transfer

**MECH 455 – Instrumentation**

Instructor:

**P. Vakiel****Special Skills or Other Requirements:**

- The position involves instructing labs in computer-aided manufacturing.
- Familiarity with ProE and/or Vericut and knowledge of CNC milling.

<b>MECH 460/521 – Computer Aided Manufacturing</b>	Instructor:	<b>K. Ahmadi</b>
<b>Special Skills or Other Requirements:</b>		
<ul style="list-style-type: none"> <li>• The position involves instructing labs in computer-aided manufacturing.</li> <li>• Familiarity with ProE and/or Vericut and knowledge of CNC milling.</li> </ul>		

<b>MECH 462 – Small Business Startup and Organization</b>	Instructor:	<b>TBD</b>
<b>Special Skills or Other Requirements:</b>		
<ul style="list-style-type: none"> <li>• An interest in entrepreneurship</li> <li>• Experience grading qualitative and quantitative assessments (with answer keys)</li> <li>• Strong written communication skills</li> <li>• Some familiarity with Course Spaces, and inputting grades and comments</li> </ul>		

<b>MECH 513 – Practice of Machine Learning</b>	Instructor:	<b>H. Najjaran</b>
<b>Special Skills or Other Requirements:</b>		
<ul style="list-style-type: none"> <li>• Candidate will co-ordinate seminars, introduce speakers, collect feedback, prepare the next term's schedule, and maintain attendance spreadsheet.</li> </ul>		

<b>MECH 594/595/695 – Seminar</b>	Instructor:	<b>K. Ahmadi</b>
<b>Special Skills or Other Requirements:</b>		
<ul style="list-style-type: none"> <li>• Candidate will co-ordinate seminars, introduce speakers, collect feedback, prepare the next term's schedule, and maintain attendance spreadsheet</li> </ul>		