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 8, 2024) and Assist with marking the final examination (exam period is Aug 6-17, 2024).

Hourly Rate: **$30.87**

ENGR 141 – Engineering Fundamentals Instructor: **TBA**

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 1st 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 220 – Mechanics of Solids I Instructor: **K. Ahmadi**

Special Skills or Other Requirements:

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

MECH 240 - Thermodynamics Instructor**:** **S. Gharehkhani**

Special Skills or Other Requirements:

- Strong background and knowledge in thermodynamics
- Excellent interpersonal and communication skills
- Must be able to take initiative and be flexible

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: **B. Yu**

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**:** **R. Bhiladvala**

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 430/580 – 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 450A – Dynamics II Instructor: **B. Buckham**

Special Skills or Other Requirements:

- Ideal candidate will have previously taken course or similar experience
- Familiarity with Bright space and OBS Studio
- Completed undergraduate level dynamics courses – confident in ability to form and manipulate equations of motion for rigid bodies in 3DMust be able to take initiative and be flexible

MECH 452/580/BME 452 – Microfluidics for Biomedical and Energy Applications Instructor: **M. Akbari**

Special Skills or Other Requirements:

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

MECH 455 – Instrumentation Instructor: **C. Valeo**

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.

MECH 460/521 – Computer Aided Manufacturing Instructor: **K. Ahmadi**

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.

MECH 462 – Small Business Startup and Organization Instructor: **L. McGeough**

Special Skills or Other Requirements:

- An interest in entrepreneurship
- Experience grading qualitative and quantitative assessments (with answer keys)
- Strong written communication skills
- Some familiarity with CourseSpaces, and inputting grades and comments

MECH 493 – Design of Thermo-Fluid Systems Instructor: **S. Gharehkhani**

Special Skills or Other Requirements:

- Strong background in Thermofluids and design
- Preferably has been a teaching assistant for the course before
- Responsibilities will include handling and covering the quiz material on pipes, and marking quizzes and exams

BME 505 - Quantitative Human Physiology. Instructor: **K. Valente**

Special Skills or Other Requirements:

- Responsible for grading assignments, holding office hours, and running tutorials that relate analyzing cells at a molecular level using engineering principles.
- Responsible for running oral exams together with the instructor.
- Position will include running labs. Labs require a certain level of expertise on microfluidics, PCR and cell culture, in addition to WHMIS and Biosafety certificates from OHSE UVic.

MECH 594/595/695 – Seminar Instructor: **K. Ahmadi**

Special Skills or Other Requirements:

- Candidate will co-ordinate seminars, introduce speakers, collect feedback, prepare the next term's schedule, and maintain attendance spreadsheet