Senior Biomedical Engineering Laboratory Coordinator

The University of Guelph is committed to equity in its policies, practices, and programs, supports diversity in its teaching, learning and work environments, and ensures that applications for members of underrepresented groups are seriously considered under its employment equity policy. All qualified individuals who would contribute to the further diversification of our University community are encouraged to apply.

Forbes Ranks U of G Among Canada's Top Employers [1]

Office, Clerical and Technical
Position covered by the Collective Agreement with USW Local 4120

Senior Biomedical Engineering Laboratory Coordinator

School of Engineering
College of Physical and Engineering Science

Hiring #: 2016-0278

Please read the Application Instructions [2] before applying

Reporting to the Associate Director, Undergraduate, the primary responsibilities of this position are to work directly with faculty to develop and deliver undergraduate Engineering laboratory experiments. As well, the incumbent will manage undergraduate laboratories within the School of Engineering and act as a resource for faculty, teaching assistants, researchers, and upper-year students when they need engineering advice or support.

As a resource for instructors, researchers, and students, the incumbent will develop laboratory experiments from concept to delivery, deliver laboratory experiments to students, and provide expert engineering guidance to students and researchers working in the incumbent’s area of expertise. This guidance includes the development, design, building and maintenance of equipment when required. The incumbent will also be responsible for the design and/or re-design of the instructional material and for teaching theory of the material, especially with the upper year classes in order to introduce/enhance the experiential learning component. This pedagogical component is core to this position.

Additional responsibilities include

- Supervising and training Graduate Teaching Assistants
- Instructing and assisting students with the collection and analysis of experimental data
- Building, maintaining, and calibrating laboratory equipment while ensuring that all activities are conducted in a safe manner
- Assessing and grading student work
- Participating in various SOE, college, or university committees and activities

The incumbent will support the following courses: Engineering Biomechanics, Signal Processing, Medical Imaging Modalities, Biomedical Signals Processing, Bio-instrumentation Design, Biomechanical Engineering Design, and Engineering Design IV.

Requirements of the position include: Bachelors Degree in Biomedical Engineering or related engineering field and must have either a Professional Engineers License or eligible to register as a Professional Engineer in the Province of Ontario at the time of hiring or equivalent engineering
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Published on Human Resources (https://www.uoguelph.ca/hr)

experience in the Biomedical Engineering field. Given the prevalence of teaching and mentorship in this position, it is essential that the incumbent possess excellent communication and organizational skills. Some prior experience with teaching or training is an asset. A solid foundation in laboratory operations and experience with research methodologies and techniques is beneficial.

Strong knowledge/skill in the following is required:

- Operation of laboratory software for data acquisition using LabVIEW, C/C++, and MATLAB
- Knowledge of biomechanics fundamentals
- Knowledge of signal and image processing fundamentals
- Circuit design and component integration

Working knowledge/skill in the following is required:

- Biosignal acquisition systems such as EMG/ECG/EEG and surface electromyography
- VICON or similar commercially available motion capture system
- Standard biomechanics instrumentation (e.g. goniometers, force plates)
- Embedded software design for microcontrollers with C
- Applications and programming of digital signal processors (DSPs)

Familiarity with the application/use of the following is valuable:

- Microcontrollers, DSP, and instrumentation sensor integration
- Electronic test equipment such as oscilloscopes, signal generators and various meters

Position Number    126-152
Classification         USW, Local 4120 Salary Band 8*
Salary Range          $29.84 Minimum (Level 1)
                               $33.32 Normal Hiring Limit (Level 3)
                               $40.38 Job Rate (Level 7)

*Tentative evaluation; subject to committee review.

Posting Date: 2016 07 13
Closing Date: 2016 07 27

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[2] https://www.uoguelph.ca/hr/careers-guelph/how-apply