The Department of Engineering Science invites applications for the following position(s):

**TEACHING ASSISTANT**
Teaching Support Staff Union (TSSU)

**COURSE:**
ENSC 474 Digital/Medical Image Processing

**LOCATION:**
Burnaby

**DURATION:**
January 3, 2020 to April 30, 2020

**QUALIFICATIONS:**
- Good written and one-to-one oral communication skills
- Good time management skills
- Expert knowledge in Digital 3D Image representation and file formats -- sampling and quantization, interpolation, storage formats, concepts in digital connectivity
- Expert knowledge in Filtering, Noise removal and Image Enhancement techniques -- Spatial domain filtering via convolution masks, Fourier domain filtering via design of frequency domain filters, image enhancement, restoration and constrained filtering, morphological filters
- Expert knowledge in Morphological Image Processing -- Dilation, Erosion, Opening, Closing and Application
- Expert knowledge in Segmentation of Medical images -- overview of the main concepts in segmentation via region growing, clustering, Level set methods, deformable curves/surfaces
- Expert knowledge in Registration of Medical images -- landmark and image registration using low dimensional and high dimensional transformations
- Expert knowledge in Representing images/anatomical shapes - Fourier descriptors, statistical/shape moments, principal components
- Expert knowledge of design and development of image processing algorithms using relevant tools in Matlab, particularly the image processing toolbox

**CLOSING DATE:**
November 04, 2019

Engineering Science graduate students apply using the online form at:
https://courses.cs.sfu.ca/forms/ensc-ensc-ta-application-engineering-science-gradu/

All other applicants (e.g. graduate students in other departments, undergraduate students and external applicants) apply using the online form at:
https://courses.cs.sfu.ca/forms/ensc-ensc-ta-application-non-ensc-grad-students/

*The University is committed to the principle of equity in employment*

The information submitted with your application is collected under the authority of the University Act (R.S.B.C. 1996, c.468, s. 27(4)(a)), applicable federal and provincial employment regulations and requirements, the University's non-academic employment policies and applicable collective agreements.

The information is related directly to and needed by the University to initiate the employment application process. The information will be used to contact references supplied by you, evaluate your qualifications and complete the employment process by making a hiring decision. Applicant information may also be disclosed to the Teaching Support Staff Union in accordance with Article XIII F.3.1.a (iv) of the Collective Agreement.

If you have any questions about the collection, use and disclosure of this information please contact the Associate VP, Human Resources, Simon Fraser University, Burnaby, BC V5A 1S6. Telephone 778-782-3237.