

SoTL: TEACHING DEVELOPMENT SCHOLARSHIP PLAN

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The scholarship provided through this program will be utilised in developing teaching aids for a core undergraduate course that I teach at UBC in the Department of Mechanical Engineering. The course (MECH 364– Mechanical Vibrations) is attended by third/fourth year students from Mechanical Engineering Department as well as from Engineering Physics and Integrated Engineering.

The course on Mechanical Vibrations requires the students to synthesize abstract concepts from mechanics and mathematics in the context of practical engineering problems. Decomposing deceptively simple vibration problems is best done through laboratory experiments and in-class demonstrations. Over the past two years I have re-designed the laboratory experiment for this course. This improvement in the laboratory and the consequent learning benefits have been mentioned by students in their recent teaching evaluation of the course. However in-class demonstrations remain to be developed. This I wish to accomplish through the scholarship.

Two students: one undergraduate and one graduate students will be hired. Both will be working part time in my lab. The undergraduate student will be involved in the machining of the components required while the graduate student will help in setting-up the demonstrations and assembling the components. In addition the graduate student will help me in conducting some of the lab sessions. The proposed budget is: 250 CAD for materials and machining costs; 750 CAD for the undergraduate (part time) student; and 1000 CAD for the graduate student.