

Project Summary (150 words maximum)

It is proposed to develop a 3-week course module in thermodynamics, fluid mechanics, and heat transfer for the Masters of Engineering in Clean Energy (CEEN) program. Readings, lectures, assignments, and quizzes will be developed by employing Teaching Assistants (TAs) recruited from the CEEN program as the first priority, and supervised by employing a doctoral engineering student. CEEN faculty will provide overall oversight of the development of all material. The module will be guided by the outcome of concept inventories designed based on published literature^{††} and the experience of UBC faculty, and guided by CEEN program objectives. Vista's e-learning toolkit will be employed. The goal is to administer concept inventories during August, 2011, and that new CEEN students complete the module during September. 2011-2012 will serve as the pilot year for this initiative, and it is envisioned that the material will be employed in all future years of the CEEN program.