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**Applying results from Physics Education Research in a large first-year service course<sup>1</sup>**

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First-year service courses are among the most challenging teaching appointments, due to factors such as lack of motivation, lack of academic preparation, and huge class size. I will describe how the Labatorial Project at the University of Calgary strives to apply results from Physics Education research on inquiry-based learning, addressing misconceptions, peer instruction etc. to the small group sections of these courses. After a brief overview of the design and implementation of the labatorials for a first-year course for engineering students, I will focus on the aspects of change management and sustainability: how one initial change led to a sequence of related modifications, from the lectures to the exams and TA training, accompanied by a natural process of faculty professional development.

<sup>1</sup>Work done in collaboration with Mike Potter, Robert I. Thompson, and W.J.F. Wilson, University of Calgary.