Quantitative Analysis of the Physics/Calculus Themed Learning Community at Northern Illinois University

DANIEL STANGE, Northern Illinois University — This talk will describe the evaluation of the introductory (mechanics based) physics and calculus courses within the Themed Learning Community (TLC) at Northern Illinois University. The TLC is a program that requires interested first-year undergraduate students to enroll in identical courses and sections: course lecture periods, recitation, and laboratory sections. The implementation of this program is to ease a student’s transition into collegiate life and provide better opportunities to form peer groups which allows a better environment and opportunity for each students’ ability to comprehend and retain cross-curricular content. The aim of this study is to evaluate the instructional effectiveness of the TLC courses of introductory physics and calculus. Analysis of instructional effectiveness will be completed by administration of standard physics concept inventories on both TLC and non-TLC enrolled students. In addition, examination of qualitative methods will be completed to provide a detailed understanding of the students’ opinions on the physics/calculus TLC courses.

Daniel Stange
Northern Illinois University

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