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Developing a Standard Based Advanced Lab Course that Fulfills COM3 Requirements

RUDI MICHALAK, University of Wyoming — An advanced physics lab has been developed into a course that fulfills the requirements for a university studies program ‘COM3’ course using Standard Teaching (ST) methods. The COM3 course is a capstone course under the new USP2015 study requirements for all majors. It replaces the WC writing requirement, typically filled in the English Dept., and adds the teaching of oral and digital communication skills. ST is a method that replaces typical assessments (homework / exam grades) with new assessments that measure certain specified learning outcomes. In combination with oral assessments and an oral final exam, the ST proves an efficient tool to implement the USP Learning Outcomes into a physics course. COM3 requires an unprecedented seven learning outcomes in a single course. Variety of learning outcomes: interdisciplinary goals, levels of writing (with drafting steps), organizational structure, standard language metrics, research and presentation deliverance skills, appropriate addressing of a variety of audiences, etc. With other assessment approaches than ST this variety would be difficult to meet in a physics course. An extended ST rubric has been developed for this course and will be presented and discussed in some detail.

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