Abstract Submitted for the MAR08 Meeting of The American Physical Society

**Revitalizing the Advanced Lab Course** DAVID MARX, Illinois State University — As a hard science, physics is based in observation and experiment. Training of physicists at the undergraduate level must include the recognition that students need a solid foundation in experimental techniques used in the various subfields of physics, best practices, and a thorough understanding of data analysis and uncertainty. Recently, recognition of this importance has resulted in the creation of an AAPT task force on the advanced laboratory. An examination of advanced laboratory courses from dozens of universities from across the United States has been conducted by the author, the results of which will be presented. In addition, knowledge gained from this examination has recently been used in revitalizing the Experimental Physics course at Illinois State University.

> David Marx Illinois State University

Date submitted: 29 Nov 2007

Electronic form version 1.4