

Abstract Submitted  
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**Development of an Advanced Laboratory in Physics at Francis Marion University** R. SETH SMITH, Francis Marion University — An Advanced Laboratory in Physics (Phys410) was established at Francis Marion University. It is a 1-credit laboratory that meets once per week and lasts for three hours. It is required for physics majors and is normally taken in the junior or senior year. One of the principal goals of this laboratory is to expose physics majors to some of the important pieces of equipment that are used in experimental physics. Currently the lab focusses on five experiments, each of which lasts for two weeks. The experiments are the Digital Oscilloscope, the Michelson Interferometer, Diode Laser Spectroscopy, the Lock-In Amplifier, and the Fourier Spectrum Analyzer. Training on each of these instruments was provided to the instructor by the Advanced Laboratory Physics Association (ALPHA). ALPHA offers a series of Immersions in the summer months, in which faculty can be “immersed” in an advanced undergraduate physics experiment for approximately three days. The goal is to provide each faculty member with enough training to implement these experiments at his/her college or university. Immersion participants may apply for grant support.

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