

Development of Nuclear Engineering Analytical Measurement Laboratory Courses at the University of Illinois

Executive Summary

The development of two undergraduate laboratory courses at the University of Illinois within the Nuclear, Plasma, and Radiological Engineering (NPRE) Department curriculum is proposed. The courses will leverage the newly constructed Pulsed Neutron Facility (PNF) at the University of Illinois to improve the education infrastructure, technical training, and technical expertise of all NPRE department undergraduate students (~200 current enrollment). The two courses are designed to provide extensive hands-on laboratory experience in the NRC target areas of neutron transport property measurement, neutron and γ -ray dosimetry, non-destructive examination technology using neutron transmission radiography, fission product identification, and special nuclear material interrogation.

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