

Nuclear Science and Engineering Program at the Colorado School of Mines – Dosimetry and Measurement Techniques Curricular Content

Executive Summary

The Nuclear Science and Engineering Program at the Colorado School of Mines is now in its fourth year of existence and has exceeded our expectation by growing rapidly in size to already 24 nuclear engineering graduate students. As a new program, there is a strong and clear need for continued course alignment and development to support the new mission. We propose to develop new core course content focusing on dosimetry and measurement techniques, an area of special interest to the NRC, health physics, and the nuclear industry. The newly developed course will also include more experiential learning components as we tried some hands-on content in the existing course and are strongly encouraged by the student responses to increase it. Additionally, we will add a significant amount of computer simulation of detector and dosimeter responses. The simulation components of the course will be fully exportable and will be available for sharing with other academic institutions. It is our intent to offer the theoretical and simulation parts of the course in an online setting in the future.

Principal Investigator: Uwe Greife, ugreife@mines.edu