

New Graduate Program Development in Nuclear Engineering Delivered via the University of Southern California (USC) Distance Education Network (DEN)

Executive Summary

The main goal of the project is to develop a concentration in Nuclear Engineering in the Master's degree program in Mechanical Engineering (MSME) that students, whether on-campus or in industry, may take on either a full- or part-time basis. Three distinguishing features of this proposal are that 1) students will have the option to complete the program either by attending classes on campus or entirely via the University of Southern California's (USC's) Distance Education Network (DEN); 2) the program will include a significant experiential learning component, with access to practitioners from nuclear power plants, national laboratories, and the nuclear detection industry; and 3) the program will engage an Industrial Advisory Board (IAB) of nuclear industry practitioners to ensure the latest safety lessons being implemented in industry are incorporated in the classroom. Several learning assessment tools will be implemented to evaluate the educational strength of the curriculum and the effectiveness of its delivery via DEN. The benefits will be the availability of higher education and training in nuclear engineering for students and practicing engineers nationwide. In the proposed two-year phase of this project, the focus will be on the development of four new Nuclear Engineering-specific courses (in addition to one already developed) that will serve as core courses for the Nuclear Engineering concentration in the MSME degree program.

The USC Viterbi School of Engineering strongly supports this program and would like this to be the first step in developing Bachelor's and Master's Degrees in Nuclear Engineering.

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