

## **A Broad-Based Nuclear Engineering Track at Syracuse University**

### **Executive Summary**

The Nuclear Engineering Track (NET) in the College of Engineering at Syracuse University (SU) to be launched in Fall 2012 will provide students with a broad-based minor in nuclear engineering. NET is motivated by our Nation's need for sustainable energy sources and increased reliance on nuclear power, and to offset the large loss of nuclear engineers and scientists in the workforce due to pending retirements. SU is located within 70 miles of four nuclear power reactors. Three are owned and operated by Constellation Energy (CENG): Nine Mile Point (NMP) Units 1 and 2 (in Oswego, NY); and the Ginna Plant (in Ontario, NY). The fourth is owned and operated by Entergy: James A. Fitzpatrick (in Oswego, NY). Because of its central location, SU will be able to support the growing demands of the nuclear energy industry on a local basis and provide a hub for developing nuclear talent to meet the Nation's future needs. Our graduates will have the potential to obtain local jobs and support the need for nuclear professionals in the northeast region and beyond. CENG-NMP has been a strong supporter of SU's College of Engineering in launching this initiative and will take an active role in the design and implementation of NET.

Support is sought to develop three courses:

- NUC510 – “Nuclear Power Plant Design, Operation & Safety”
- NUC520 – “Radiochemistry, Nuclear Fuel Reprocessing & Nonproliferation”
- NUC570 – “Experiential Studies”

Modest funding is requested to enhance the following two courses:

- NUC201 – “Introduction to Nuclear Engineering and Reactor Safety”
- NUC530 – “Electric Power Generation & Distribution”

Undergraduate students in all engineering disciplines are eligible to take the NET courses, and graduate students may take the 500-level courses. The program will focus on Nuclear Safety.

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