

AC 2008-2068: ELECTIVE COURSES ON NUCLEAR ENERGY

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Elective Courses on Nuclear Energy

Abstract

With energy demands rising and climate change escalating, one of the few available means of producing large amounts of energy without greenhouse gas emission is nuclear, a technology that has been dismissed in the past thirty years for safety and environmental concerns. North Carolina A&T State University has recently received a nuclear education grant from NRC (Nuclear Regulatory Commission) to develop course modules and elective courses on nuclear energy to raise awareness of nuclear power and its related issues in security, safety, and nuclear environmental protection.

Course modules are developed to supplement a required freshman engineering course GEEN 100 Engineering Design and Ethics (Introduction to Engineering). The modules give an overview of nuclear engineering to students to broaden their career options. Two new elective courses are being developed. An engineering elective is for engineering seniors on nuclear energy and nuclear engineering. It is intended to prepare students for the workforce and/or graduate studies in the nuclear engineering field. The second elective is for all majors, and it will focus on energy for America's future, covering nuclear energy among other alternatives. The NRC curriculum grant will build faculty teaching competency in a university without a nuclear engineering program. It will educate students to become informed citizens on nuclear power and related issues.