

NUCLEAR POWER TECHNOLOGY

Overview

Degrees Offered: AAS, Program Certificate

Program Begins: Fall

Delivery Method: Online

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Description

Nuclear Power Technology at BSC is an instructor-led program developed for current and future nuclear power employees. To earn a Nuclear Power Technology degree, students will need to complete a course of study focusing on the knowledge and skills necessary to be a non-licensed operator in a Nuclear Power Generation Facility.

Offered entirely online, students are trained in topics including, but not limited to: facility operations, plant equipment and systems, material science, nuclear plant chemistry, radiation protection, classical and nuclear physics, mechanical and electrical fundamentals, and safety culture.

Preparation

A background in math, physics, and chemistry is highly recommended. Knowledge of electronics, mechanics, or instrumentation is helpful.

Prospective students should be prepared for the physical demands of entry-level technician positions. Typical industry requirements include passing a physical exam, which may entail lifting 50+ pounds, climbing ladders, and working in confined spaces or heights. Job applicants also may be required to pass a drug screen and eye exam, including the ability to distinguish between colors accurately.

Requirements

Students who complete the curriculum requirements receive a Program Certificate or Associate in Applied Science degree.

Those who complete the AAS or Certificate program and other specific requirements receive a National Academy for Nuclear Training Certificate. The certificate states the student has completed nuclear fundamental training objectives based on the Nuclear Energy Institute's Uniform Curriculum Standard.

Career Opportunities

Industry forecasts a strong job market for job applicants in nuclear energy due to an aging workforce, plant license renewal, and growing interest in nuclear power. Graduates find employment as entry-level non-licensed operators. Graduates can also find entry-level employment as radiographers, operators (non-nuclear), radiation monitors, and decontamination workers. Technicians with the necessary skills can become instructors who train new workers or technical writers who prepare operating or repair manuals.

Additional Information

NEI Approved

Developed in collaboration with EPCE nuclear industry partners, the Nuclear Power Technology program is approved by the Nuclear Energy Institute (NEI). The purpose of NEI is to foster and encourage the continued safe utilization and development of nuclear energy to meet the nation's energy, environmental, and economic goals and to support the nuclear energy industry by providing encouragement to educational institutions to promote education in nuclear energy disciplines.

Credits from this program may be applied to BSC's Bachelor of Applied Science degree (BAS) in Energy Management, offered entirely online. The BAS is designed for individuals interested in supervisory and management positions in the energy industry. The BAS builds on the foundation laid in an AAS degree and includes general education classes, core management courses, and energy specific management courses.

BSC's National Energy Center of Excellence was designated as the National Power Plant Operations Technology and Education Center by U.S. Energy Secretary Samuel W. Bodman in 2007. This official designation recognizes BSC as the premier national center of education and training for operators and technicians in the energy industry.

Degree Plans

- Nuclear Power Technology (Operations) Associate in Applied Science
- Nuclear Power Technology (Operations) Program Certificate
- Nuclear Power Technology (Instrumentation & Control) Associate in Applied Science
- Nuclear Power Technology (Instrumentation & Control) Program Certificate

- Nuclear Power Technology Associate in Applied Science
- Nuclear Power Technology Program Certificate

Program Learning Outcomes

Upon graduation Nuclear Power Technology students will be able to:

- Demonstrate knowledge of energy fundamentals to include math, physics, electrical and chemistry theory.
- Demonstrate the ability to explain the principals of operation and classify the key components found in a nuclear plant.
- Demonstrate a general understanding of common systems found in a nuclear power plant to include safe operation and systems interaction.