PROCESS TECHNOLOGY

Overview

Degrees Offered: AAS, Program Certificate
Limited Enrollment: Yes
Program Begins: Fall
Delivery Method: Online, On Campus
Phone: 701-224-5651 • 800-852-5685
Email: bsc.energy@bismarckstate.edu

Description

The Process Technology program at BSC focuses on training students and incumbent workers in the operation of refineries, biofuel plants, coal gasification and petrochemical plants, and natural gas processing facilities. Students learn the technical and safety aspects of plant operations, responsibilities of operators, and the mechanical and chemical technology needed for working in related industrial operations. BSC offers on campus and online study options that prepare graduates for entry-level jobs in the energy industry.

A limited number of students are enrolled in August for courses on campus. Courses offered online begin every three to five weeks and are not subject to limited enrollment.

Preparation

Background in basic chemistry, basic physics, and high school Algebra I 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. Energy industry jobs typically require shift work and overtime hours.

Requirements

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

VETERANS PRIORITY

This program receives funding from the U.S. Department of Labor; therefore, veterans and eligible spouses receive priority of service over non-covered persons. (20 CFR 1010)

Career Opportunities

A career in process technology provides excellent pay and employability. Strong job demand is expected nationwide for years to come. Graduates are prepared to work in the petrochemical field including refineries, ethanol plants, gasification, natural gas processing and others. Employers look for operators who pay attention to details, have good computer skills, can identify problems and offer solutions. Graduates also find work in related industries such as pipeline transportation, petroleum and chemical products, mining and utilities.

Additional Information

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

- Process Technology Associate in Applied Science
- Process Technology Program Certificate

BISMARCK STATE COLLEGE | North Dakota's Polytechnic Institution

Program Learning Outcomes

Upon graduation, Process Technology students will be able to:

- Explain an operator's responsibilities and demonstrate safe, professional and ethical characteristics necessary in the industry.
- Describe the design and operation of, as well as diagnose and troubleshoot various equipment and systems used in process/power facilities including instrumentation and auxiliary systems.
- Employ mathematics, chemistry and thermodynamics in a systematic, safe and comprehensive manner to meet standards and achieve quality and efficiency.
- Utilize industry standards when reading and interpreting piping and instrumentation drawings.
- Demonstrate excellent communication skills to ensure safe and optimal operation in a diverse environment.
- Demonstrate the skills and knowledge necessary in the operation of complex equipment and systems such as distillation, refrigeration, biofuels production and natural gas processing.