

PETROLEUM PRODUCTION TECHNOLOGY

Overview

Degrees Offered: AAS, Program Certificate

Limited Enrollment: Yes

Program Begins: Fall, Spring

Delivery Method: Online, On Campus

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Description

The Petroleum Production Technology program at BSC provides a broad background in equipment operation and maintenance used in the oil and gas industry. Students study the connection between petroleum geology, exploration, drilling, production, transportation and processing. They learn about safety, mechanical and electrical fundamentals, instrumentation and control, print reading, troubleshooting and communications, and the chemical technology needed to work in various petroleum operations. Instruction includes the nature of gas and oil, where it forms, mineral rights leasing and contracts, mechanics and techniques of drilling, testing and well completion, artificial lift, surface equipment, separation, storage, and measurement.

Classes begin every three to five weeks and require some on campus labs or job shadowing at an approved facility. PROD courses are offered online only.

Preparation

A background in math and chemistry and knowledge of drafting, mechanics, or instrumentation is beneficial.

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.

Career Opportunities

Working in the petroleum industry provides a high paying career and exciting opportunities for employment throughout the world. The need for trained operators and technicians continues to increase as oil and gas production volumes and reserve estimates increase in North Dakota's Bakken region and other areas where petroleum is produced.

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

- Petroleum Production Technology Associate in Applied Science
- Petroleum Production Technology Program Certificate

Program Learning Outcomes

Upon graduation, Petroleum Production students will be able to:

- Evaluate problems by differentiating process variables and propose solutions through oral, written and graphical communications.
- Explain the framework of the petroleum industry and identify various pieces of equipment utilized in exploration, drilling, production, processing and transportation.
- Employ basic practices in the areas of safety, mathematics, hydrocarbon chemistry, electrical fundamentals and instrumentation to support the operating parameters in the petroleum production industry.

- Utilize industry standards when interpreting piping and instrumentation diagrams to evaluate issues, opportunities and developing lockout/tagout procedures.
- Demonstrate safe, professional and ethical practices in the role of a technician in the petroleum production environment.