

# BC3 now accepting applications from high school juniors for five XTO scholarships

\$20G donation fully funds courses toward “unique” Oil and Natural Gas Industry Workplace Certificate

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(Butler, PA) Butler County Community College is offering five \$3,500 scholarships that will fully fund tuition and books for high school juniors who enroll in BC3’s 15-credit Oil and Natural Gas Industry Workplace Certificate this fall.

Students in the Butler, Freeport, Karns City, Knoch, Mars, Moniteau, Seneca Valley and Slippery Rock school districts are eligible for the scholarships funded by XTO Energy’s \$20,000 donation to the BC3 Education Foundation, Inc.

To accommodate juniors’ high school schedules, the five Oil and Natural Gas Industry Workplace Certificate courses will be spread over two years and will be held in the evening, during summer or online, according to Morgan Rizzardi, BC3’s associate director of admissions.

High school juniors must have a cumulative 3.0 grade-point average to qualify.

## “Resource right under our feet”

“We are blessed with having a resource literally right under our feet that holds a lot of promise for Butler County, for Pennsylvania, and for the country,” said Steve Forde, public and government affairs manager for XTO Energy’s Appalachia Division, based in Warrendale.

“In the earliest stages of XTO beginning development here in Western Pennsylvania, part of our responsibility was to seek out community and civic partners with whom we could work. BC3 very early on showed an interest in natural gas development, not only in Butler County, but more importantly, showed a nimbleness and a technical ability to begin preparing students to work in an industry such as ours.”

High school juniors will study introduction to petroleum and natural gas this fall; college writing in the spring and industrial mechanics in the summer of 2018. They would study college algebra in the fall of 2018, and industrial safety in the petroleum and natural gas industry in the spring of 2019.

A noncredit, industry-recognized safeland certification, offered in the summer of 2019, is recommended but not necessary.

## “It’s not just pulling it out of the ground”

College writing and college algebra courses can be taken online or at BC3’s main campus or off-campus locations. Introduction to petroleum and natural gas, industrial mechanics and industrial safety in the petroleum and natural gas industry are evening courses held at BC3’s main campus.

“The benefit to the student is that he or she needs an overall appreciation of everything involved in the petroleum and natural gas extraction process, because it’s not just pulling resources out of the ground, it’s what do you do with them afterward,” said Matt Kovac, BC3’s dean of Science, Technology, Engineering and Mathematics.

Varied petroleum technologies and their purposes – such as exploration, drilling, production, transportation, marketing and refining – are topics in the introduction to petroleum and natural gas course.

“The whole big-picture look at the industry,” Kovac said.

Students in the industrial mechanics course will learn the fundamentals of electricity, hydraulics and mechanics. Lab experiences emphasize applications of the theory and include activities that apply to the petroleum and natural gas industry such as electric motors and mechanical drives.

“All foundational things,” Kovac said. “If you go to any phase of the actual physical extraction, mid-stream, refinement, and then further refinement, you will see all those principles on display.”

The industrial safety in the petroleum and natural gas industry course will introduce students to proper methods and procedures for conducting safe operations – including analysis of environmental hazards. Safety equipment and measurement devices associated with the hazards encountered in oil and natural gas surface operations will also be examined.

## “This is a pretty unique program”

“There are many specialized skills that are required to safely do the work necessary to develop natural gas in Butler County and throughout the country,” Forde said. “Our support of this program is reflective of our need to begin educating students on many of the specific skills, and the math and science foundation of those skills, at the earliest possible age. That is why we believe this is a pretty unique program, and one worthy of our continued support.”

Western Pennsylvania, Forde said, has weathered an economic downturn in the natural gas industry better than other regions of the state, because of “geologically, where we are positioned. We are able to develop natural gas liquids that are attractive economically, and from an XTO perspective, allowed for continued operations, particularly here in Butler County.”

Pennsylvania is the second-highest producer of natural gas in the nation, trailing only Texas, according to the state Department of Environmental Protection.

Allegheny, Armstrong, Beaver, Butler, Greene, Washington and Westmoreland counties are home to 306 of the 504 unconventional wells in Pennsylvania, DEP states.

## 20% of region's unconventional wells drilled in 2016

Sixty-one of those 306 unconventional wells in those counties were drilled in 2016, including 10 of Butler County's 31 and two Armstrong County's eight, according to DEP.

An unconventional well, DEP reports, is one that is drilled deeply and horizontally and uses highly pressurized water to fracture shale formations and access natural gas.

Production in Pennsylvania climbed to its highest level on record in 2016, with about 5.1 trillion cubic feet of natural gas produced from unconventional gas wells, according to DEP.

As of the second quarter of 2016, 19,623 workers were directly employed in six core industries in the natural gas or oil development fields in Pennsylvania, according to the state Department of Labor and Industry. Those core industries were crude petroleum and natural gas extraction; natural gas liquid extraction; drilling oil and gas wells; support activities for oil and gas operations; oil and gas pipeline and related structures; and pipeline transportation of natural gas.

"The job market is competitive," said Forde, who says he foresees a slate of pending retirements of those who have 30 or more years in the industry. "That is a big gap to fill. And that creates a need for smart, well-trained individuals to come and take their place, and there is plenty of opportunity for that."

The \$20,000 donation is the latest from XTO, which has gifted \$305,000 toward development of energy and technical programs at BC3 since 2013, according to Ruth Purcell, executive director of the BC3 Education Foundation Inc.

"The partnership continues with executives serving on BC3 advisory groups," Purcell said. "We are fortunate to have XTO Energy in our community. Their commitment to education is demonstrated by their generous support of BC3 and many other schools in the region."

## Certificate holders would have "clear edge"

While those who complete the certificate program must undergo additional training through the company, those applicants "would have a clear edge in that they have a better understanding of many of the specialized skills and the importance of safety within this industry," Forde said.

Among the entry-level jobs in the natural gas industry are roustabouts and welltenders. Roustabouts, according to the Marcellus Shale Coalition, perform pipe fitting and all-around mechanical tasks. Welltenders look after oil and gas wells, monitor the progress of the well and ensure all equipment is functioning properly, the coalition reports.

Roustabouts in oil and natural gas extraction earned on average \$41,740 per year as of May 2016, and in natural gas distribution, \$49,520, according to the U.S. Department of Labor's Bureau of Labor Statistics.

Welltenders in natural gas distribution earned on average \$73,590 per year as of May 2016, and in natural gas extraction, \$68,100, the Bureau of Labor Statistics reported.

The five three-credit courses in the Oil and Natural Gas Industry Workplace Certificate also apply to BC3's 24-credit Energy Technology Workplace Certificate, which was launched in 2014. In addition to the five three-credit courses, the Energy Technology Workplace Certificate includes courses in process control instrumentation, and introduction to process control and programmable logic controllers.

Students earning the certificate can work in areas such as exploration, drilling, natural gas processing and pipeline construction – and in jobs such as landman, construction project technician, materials procurement agent, electronics technician and equipment maintenance technician

Butler County high school juniors interested in the Oil and Natural Gas Industry Workplace Certificate should contact their guidance counselor, or Erin Cioffi, BC3's assistant director of high school programming, at [erin.cioffi@bc3.edu](mailto:erin.cioffi@bc3.edu) or at 724-287-8711, ext. 8254.