Center for Optical Technologies

LEHIGH UNIVERSITY

PENNSTATE 1855

Northampton Community College

Ben Franklin Technology PArtners Northeastern Pennsylvania

Lehigh Carbon COMMUNITY COLLEGE

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A.A.S. Program
Electronics Technology - Optoelectronics

Prepare the student for employment as an optoelectronics technician. Graduates will assist engineers in the design, construction, testing, and repair of optoelectronic systems.

Upon successful completion of this program, graduates will be able to:

- Distinguish between the various types of fiber optics cables and connectors.
- Describe lasers, detectors, transmitters, receivers, optical amplifiers, and other active components.
- Describe optical couplers, switches, modulators, and other passive components.
- Demonstrate proper laboratory procedures to make optical and electrical connections to various test equipment: monochromators, optical spectrum analyzers, lightwave component analyzers, and wavelength meters.
- Describe a fiber optics communication system
- Describe the role of optoelectronics in communications, healthcare and life sciences and other fields.
- Demonstrate an ability to use and apply mathematical quantitative reasoning to design functional optoelectronic circuits.

First Semester	Credits	Second Semester	Credits
Fundamentals of Technology	3	Electronic Drafting & Construction	1
D.C. Circuits	4	A.C. Circuits	4
Digital Fundamentals	4	Introduction to Microprocessors	4
College English I	3	Technical Reporting	3
Technical Algebra and Trigonometry I	3	Basic Programming Language	2
		Introduction to Fiber Optics	3
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Third Semester	Credits	Fourth Semester	Credits
Advanced Fiber Optics	4	Optoelectronics Applications	3
Communication Networks	3	Fiber Optic Test & Measurement	4
Electronic Circuits	4	Integrated Circuits	4
Introduction to Physics I	4	Introduction to Physics II	4
Social Science/Humanities	3	Social Science/Humanities	3
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