

# OPTICS & PHOTONICS

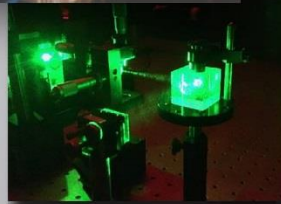
Formerly Laser Electro-Optics Technology (LEOT)

PREPARE FOR A GREAT CAREER

jobs. jobs. jobs ... apply now!

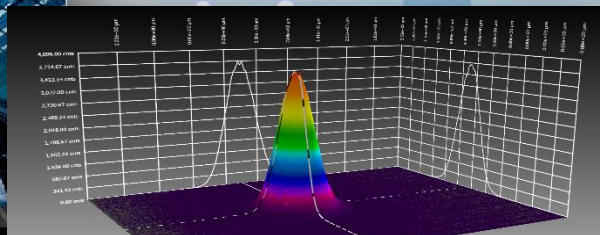
Optics & Photonics Technicians are in high demand! Companies that hire our graduates include:

- Convergent Photonics
- Coherent Laser
- Trumpf Laser
- IPG Photonics
- OFS Fitel
- Northrop-Grumman
- MIT Lincoln Labs
- Many, many, more



## The Program

- Hands-On Project-Based Curriculum
- One-Year Certificate Program
- Two-Year Associate Degree Program
- Starting Salaries from \$40-\$60K!
- Student Internships Available
- Small Class Size
- Excellent Job Placement



## What is photonics?

The practical application of lasers, optics and electronics.

## Where is it used?

Everywhere! Precision laser machining, medical device fabrication fiber optic communications, 3D sensing, aerospace and defense, homeland security, consumer electronics, cancer research, high speed computing, additive manufacturing, and many more...

## Where would I work?

Local and national companies that manufacture lasers and laser systems, fiber optics, complex optical systems, or use lasers and optics in the precision manufacturing of other consumer or defense related products. Graduates may also work in research and development or continue their studies to the four-year college level.



## Contact

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 **STCC**  
Springfield Technical Community College

learn more at [www.stcc.edu/laser](http://www.stcc.edu/laser)

## Associate of Science Degree

<b>SEMESTER 1</b>				
Course No.	Course Title	Class	Lab	Credits
MET-160/160L	Engineering Graphics with SolidWorks	2	1	3
ELE-110/110L	Electronics for Technicians 1	2	1	3
ENG-101	English Composition 1	3		3
MET-100	Essentials for Manufacturing Technicians	3		3
LEO-100	Lab and Laser Safety	1		1
LEO-110	Intro to Optics and Photonics	3		3
<b>Total:</b>		<b>14</b>	<b>2</b>	<b>16</b>
<b>SEMESTER 2</b>				
LEO-135/135L	Geometric Optics	2	1	3
ELE-115/115L	Electronics for Technicians 2	2	1	3
LEO-140/140L	Fiber Optic Technology and Applications	2	1	3
LEO-150/150L	Fundamentals of Lasers	2	1	3
ELE-180/180L	Instrumentation & Measurement	3	1	4
<b>Total:</b>		<b>11</b>	<b>5</b>	<b>16</b>
<b>SEMESTER 3</b>				
LEO-235/235L	Wave Optics	2	1	3
ELE-240/240L	Sensors and Data Acquisition	3	1	4
LEO-250/250L	Senior Project Research	1	1	2
LEO-260	Industrial Laser Applications	2	1	3
MAT-124	Technical Math 1	4		4
ENG-104	Technical Report Writing	3		3
<b>Total:</b>		<b>15</b>	<b>4</b>	<b>19</b>
<b>SEMESTER 4</b>				
LEO-265/265L	Senior Projects in LEOT	1	2	3
PHY-118/118L	Introduction to Light and Lasers	3	1	4
LEO-240/240L	Advanced Topics in Lasers	2	1	3
MAT-115	Statistics	3		3
EL-SOC	Elective: Social Science	3		3
<b>Total:</b>		<b>12</b>	<b>4</b>	<b>16</b>

## One-Year Certificate Program

<b>SEMESTER 1</b>				
Course No.	Course Title	Class	Lab	Credits
MET-160/160L	Engineering Graphics with SolidWorks	2	1	3
ELE-110/110L	Electronics for Technicians 1	2	1	3
MET-100	Essentials for Manufacturing Technicians	3		3
LEO-100	Lab and Laser Safety	1		1
LEO-110	Intro to Optics and Photonics	3		3
<b>Total:</b>		<b>11</b>	<b>2</b>	<b>13</b>
<b>SEMESTER 2</b>				
LEO-135/135L	Geometric Optics	2	1	3
ELE-115/115L	Electronics for Technicians 2	2	1	3
LEO-140/140L	Fiber Optic Technology and Applications	2	1	3
LEO-150/150L	Fundamentals of Lasers	2	1	3
ELE-180/180L	Instrumentation & Measurement	3	1	4
<b>Total:</b>		<b>11</b>	<b>5</b>	<b>16</b>