



Lake Washington Institute of Technology Kirkland, Washington

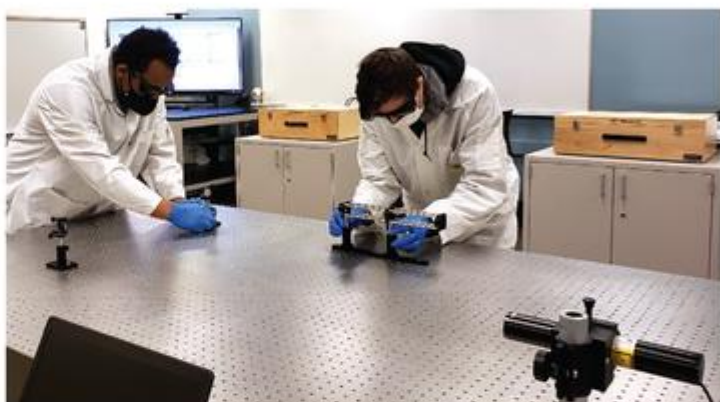
LASER-TEC is the Center for Laser and Fiber Optics Education, founded in 2013 by the National Science Foundation (NSF) and headquartered at Indian River State College in Florida. It was established to help meet the goals of educating and sourcing domestic talent in the areas of optics and photonics. As a service to students, recent graduates, and prospective employers, Photonics Spectra runs a profile of one of the 35 LASER-TEC colleges each month.

Lake Washington Institute of Technology (LWTech) is a publicly funded workforce college in Kirkland, Wash. The newest addition to the college's list of programs is a two-year Associate of Applied Science-Transfer (AAS-T) degree in laser and optical technology. The program prepares students for a job as an entry-level photonics system technician or a specialist in one of the many photonics organizations in the Seattle area.

Program description

The Laser and Optical Technology AAS-T program teaches students how to apply basic engineering principles and technical skills in support of engineers and other technical professionals who develop and use lasers and other optical devices for commercial or research purposes. The program includes in-depth instruction and hands-on training in understanding the principles of light and optics, troubleshooting photonics-enabled systems, and establishing correct maintenance procedures, safety precautions, cleanroom regulations, and reporting preparations.

In addition to the AAS-T degree, LWTech offers seven certifications in photonics fields:



Fikralem Gebremedhin (left) and Nathan Suss set up a laser/optical experiment in the photonics lab at Lake Washington Institute of Technology.

1. *The Photonics Technician Certificate of Completion* teaches students how to apply basic engineering principles and technical skills in support of engineers and other technical professionals who develop and use lasers and other optical devices for commercial or research purposes.
2. *The Laser Systems Repair Technician Certificate of Completion* prepares students to work with laser system technology and maintain optoelectronic systems, including biomedical laser-based systems.
3. *The Laser Manufacturing Specialist Certificate of Completion* prepares students to work with laser technology and its broad uses to the field of industrial manufacturing.
4. *The Optoelectronics Systems Technician Certificate of Completion* prepares students to apply their understanding of nanotechnology, microsystems, and semiconductor technologies to industrial applications.
5. *The Fiber Optic Communications Technician Certificate of Completion* prepares students to apply their understanding of advanced communication systems based on the use of fiber optics as an enabling technology in the systems' operation.
6. *The Imaging and Remote Sensing Specialist Certificate of Completion* prepares students to apply their understanding of light and optics to imaging systems used for military, environmental monitoring, and medical applications, among others.
7. *The Lighting and Illumination Technician Certificate of Completion* prepares students to be skilled lighting designers and display technicians for laser light show productions.

LASER-TEC college profile

Graduates of LWTech's AAS-T degree program have the skills to:

- Apply knowledge and skills related to how optics, lasers, photonic devices, electronics, controls, optomechanical devices, and electromechanical devices operate and interface with the equipment, applications, or systems in which they are embedded.
- Measure characteristics of passive optical components, as well as support and manipulate equipment.
- Perform accurate optical alignments, testing, installation, maintenance, and operations for optical and photonic systems.
- Measure output characteristics of lasers and other light sources.
- Operate, calibrate, and maintain lasers and other light-emitting photonic devices.
- Integrate photonic devices or subsystems into larger systems and ensure proper operation within prescribed industrial/manufacturing specifications and with proper safety considerations.
- Maintain a clean lab environment and follow established safety rules and regulations.
- Solve problems using the scientific method.
- Establish and maintain cooperative and effective working relationships with others involved in the processing and fabrication of materials and parts.
- Present technical information clearly and concisely in written and oral form.
- Apply knowledge and skills in project management, leadership, career planning, and goal setting.
- Prepare to successfully apply for other industry-recognized certification exams in the field.
- Demonstrate critical thinking, teamwork, communication, intercultural appreciation, and information literacy skills.
- Meet social science, humanities,

written communication, and quantitative reasoning distribution requirements.

How to recruit from this college

Reach out to our program director listed below, or come to our college to present your company and employment opportunities to our students. We will make available, free of charge, a private room in which to interview interested students. Also contact us to arrange a recruiting visit. Current students are always seeking internship opportunities, and graduates are available each May.

Contact information

Hany S. Roufael, Ph.D.
+1 425-739-8100, ext. 8575
hany.roufael@lwtech.edu
East Building, E153
11605 132nd Ave. NE
Kirkland, WA 98034

Program website

www.lwtech.edu/lasers



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