

CERTIFICATE IN PHOTONICS & LASERS TECHNICAL SPECIALIST

Puerto Rico Photonics Institute (PRPI)

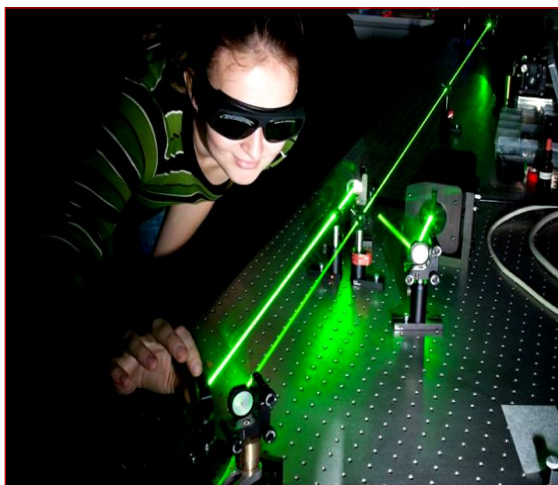
PROGRAM DESCRIPTION

The Puerto Rico Photonics Institute (PRPI) is an initiative of the School of Environmental Affairs of Universidad Metropolitana (UMET). PRPI is the first institute in Puerto Rico and the Caribbean to specialize in research and education in optics and photonics (O&P). Its laboratories are located in the REDI Building at the Barceloneta Science Park.

The Certificate in Photonics and Lasers is a **1-year program** comprising four eight-week terms, including three terms of concentration courses and an industry technical internship. The core curriculum covers the principles of optics and photonics and includes electronics, lasers, fiber optics, and devices and instruments. Students spend more than 40 percent of their time in the lab, training on laser and optical systems. This program is offered at the UMET Cupey campus, with laboratories at the PRPI labs in Barceloneta.

A career in lasers and optics offers opportunities in aerospace, agriculture, medical technology, construction, nanotechnology, alternative energy, environmental technology, IT, laser/optical scanning, laser welding, cutting and etching, additive manufacturing, solid state lighting, and biotechnology. The program also includes a course in entrepreneurship in emerging technologies. This certificate was approved by the Puerto Rico Council of Education in June 2015 and follows the curriculum developed by OP-TEC, the National Center for Optics and Photonics Education. This program is also certified by ETA International, the Electronics Technicians Association. Students completing our certificate can also be ETA-certified.

JOB OPPORTUNITIES: The need for competent, confident, career-minded technicians is rapidly increasing. An entry-level position can develop quickly as demand continues to grow. Salaries typically range from \$20,000 to more than \$47,000 per year.



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COURSE	CREDITS
TERM I	
OPSC 100 Mathematics for Optics and Photonics	3
ENGL 103 Introductory English Language Course	3
OPSC 101 Fundamentals of Light and Lasers	5
TERM II	
ENMA 101 Introduction to Entrepreneurship	3
OPSC 102 Lasers and Applications I	4
OPSC 110 Electronics for Optics and Photonics	5
TERM III	
OPSC 120 Industry Technical Internship	5
TERM IV	
OPSC 103 Lasers and Applications II	4
OPSC 104 Photonic Enabled Technologies	3
OPSC 111 Electronics for Optics and Photonics II	5
TOTAL	40

Equal Opportunity: Universidad Metropolitana (UMET) provides equal education and employment opportunities and does not discriminate on the basis of race, color, religion, sex, gender, gender identity, real or perceived sexual orientation, national origin, military status, status as protected veteran, physical or mental disability, social condition, age, marital status, political ideologies, domestic violence or sexual attack victim status, or any other characteristic protected by federal, state, or local law. Disabilities: Services are available to students who may need accommodations, interpreters, and/or specialized equipment. All student requests are dealt in confidential manner.

The Certificate in Photonics & Lasers Technical Specialist is part of New Horizons: Puerto Rico Lasers and Photonics Career Pathways, a project funded by the United States Department of Labor – Employment and Training Administration – Trade Adjustment Assistance Community College and Career Training Grant (TAACCT) Round 4. TC-26472-14-60-A-72. The program materials were created by Puerto Rico Photonics Institute (PRPI)/UMET and do not necessarily reflect the official position of the U.S. Department of Labor. Is licensed under a Creative Commons Attribution 4.0 International License.