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FOR IMMEDIATE RELEASE

## **ETA International Targets Schools with New Photonics and Precision Optics Certifications**

**Electronics Technicians Association International (ETA) is in the process of recruiting schools around the world to offer students training and certification in photonics and precision optics.**

Greencastle, Indiana – November 30, 2011 – ETA recently announced the release of the new Photonics and Precision Optics certifications. ETA has now begun contacting K-12 through postsecondary schools around the world to discuss options for offering valuable training and certification in Photonics and Precision Optics.

The ETA Photonics and Precision Optics certifications were developed in conjunction with the Florida Photonics Cluster trade association in cooperation with companies, educational institutions, and individual photonics professionals in response to the growth potential for optics and photonics technician jobs. The ETA Photonics and Precision Optics certifications are based on the OP-TEC (National Center for Optics and Photonics Education) skills standards.

“Photonics is the technology of generating and harnessing light and other forms of radiant energy whose quantum unit is the photon.”<sup>1</sup> Photonics is important because lasers and other light beams are the “preferred carriers” of energy and information for many applications. Thus “the infusion of one or two photonics courses into two-year postsecondary programs in related technologies can qualify graduates for a far wider variety of jobs and increase the global competitiveness of the American workforce.”<sup>1</sup> Among the many photonics-enabled fields are; aerospace technology, agriculture, biomedicine, construction, engineering, micro technology and nanotechnology, environmental technology, geographic information systems and global positioning, information technology, chemical technology, transportation, homeland security, defense systems, and manufacturing.

The ETA photonics certifications are the Photonics Technician Operator (PTO) and the Photonics Technician Specialist (PTS). Both certifications require that the individual attend ETA-approved training and consist of four separate knowledge exams plus demonstration of hands-on skills either by satisfactory completion of ETA-approved training or approval by an ETA-certified professional.

PTO’s work in jobs where they assemble, measure, test and repair optical components such as lenses, mirrors, filters, fiber optics and electro-optic or other photonics devices plus optical sources such as lasers and light-emitting diodes (LEDs). PTO’s typically work in applications where photonics is an “enabling-technology” such as manufacturing/materials processing, internet/communications, biomedical equipment, and defense/homeland security systems development/integration.

PTS’s work in jobs where they assemble, measure, test and repair optical components such as lenses, mirrors, filters, fiber optics and electro-optic or other photonics devices plus optical sources such as lasers and light-emitting diodes (LEDs). Specialists work in areas that utilize the skills and knowledge of the Operator level, but also an additional higher level of optics, photonics physics and technology and that require a greater variety of hands-on competencies in laser and optical components and systems.

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PTS's typically work in applications such as: research and development laboratories, product development, test, and production specialists who are team members for original equipment manufacturers (OEMs) of laser, optics, and photonics components and systems. They are often graduates of associate degree programs that focus specifically on optics, lasers, and photonics.

The ETA Precision Optics certifications are the Technician in Precision Optics (TPO) and the Specialist in Precision Optics (SPO). The TPO certification consists of two separate exams. The SPO certification consists of three exams. Both the TPO and SPO certifications require that the individual attend ETA-approved training plus demonstration of hands-on skills either by satisfactory completion of ETA-approved training or approval by an ETA-certified professional.

TPO's work in optical component fabrication technical areas in optical shops for optics manufacturers and in quality control departments (incoming and/or outgoing inspection) for organizations that incorporate precision optics into various systems. They must be able to examine the properties and uses of a variety of bulk materials; have experience in the use of equipment and procedures for shaping, polishing, and coating precision optics; and be able to use optical instruments procedures and guidelines for verifying optical component dimensions and tolerance. They can also handle, store and ship precision optical components. TPO's have the minimum required hands-on competencies and experience with fabrication and tests of fewer types of optics.

SPO's produce, test, and handle optical (infrared, visible, and ultraviolet) components that are used in lasers and sophisticated electro-optical systems for defense, homeland security, aerospace, biomedical equipment, digital displays, renewable energy production, and nanotechnology. SPO's also integrate precision optical components into these electro-optical systems and maintain them, including handling, storage, and transport. SPO's also have experience in shaping, polishing, and coating precision optics, using optical instruments, understanding procedures and guidelines for verifying optical component dimensions and tolerances. These technicians have a greater range of hands-on competencies and experience with fabrication and test of a wider range of types of optics and optical coatings than the TPO.

For more information on the ETA Photonics and Precision Optics certification please contact ETA International at 800.288.3824 or [www.eta-i.org](http://www.eta-i.org).

Download this press release at – [www.eta-i.org/pr/photonics](http://www.eta-i.org/pr/photonics).

**ETA<sup>®</sup> International** - Founded in 1978, the Electronics Technicians Association International is a not-for-profit, professional association promoting excellence in electronics technologies through certifications. The association's initiatives are to provide a prominent certification program of competency criteria and testing benchmarks that steer international electronic standards and renowned professional electronics credentials. Today, ETA has issued over 115,000 technical certifications covering more than 70 certification programs in a variety of electronics fields. The association consists of over 5,000 members, 625 Subject Matter Experts (SME's) serving on various Industry Advisory Committees and 1,010 Exam/Certification Administrators (CA's). ([www.etainternational.org](http://www.etainternational.org))

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<sup>1</sup> OP-TEC: The National Center for Optics and Photonics Education. 2011. Web. 28 November 2011.