

Short Course Description

Course Title

Practical *de facto* Laser Performance Specifications

Course Description

This short course will provide attendees with a basic understanding of the laser industry *de facto* laser beam performance specifications. Topics to be covered include, but not limited to, Beam Pointing Stability, Polarization Ratio, RMS Noise, Peak-to-Peak Noise, Pulse Duration and Duty Cycle, Peak Power, Average Power, Pulse Repetition Rate, and M^2 . These specifications constitute the critical parameters that determine whether or not a laser, or laser system, will do the intended job.

Benefits and Learning Objectives

At the end of this short course participants should be able to:

- test/measure laser performance parameters/specifications for any type of laser/laser system
- compare the performance of different lasers and laser systems
- select the right laser/laser system for any application with certainty
- identify the performance limitations of lasers/laser systems
- specify appropriate analyzers for laser beam performance evaluation
- identify the performance limitations of laser beam analyzers
- intelligently discuss lasers and their performance using proper laser terminology
- build stronger relationships with clients/customers
- obtain the technical knowledge and confidence to enhance job performance and rise above the competition.

Intended Audience

This introductory short course explains practical and *de facto* industry laser performance specifications quite beneficial to Managers, Sales/Marketing, Engineers, Technologists, and Technicians. It will help participants precisely grasp laser and laser system requirements and specifications.

Instructor Biography

Sydney Sukuta started his teaching career at California State University Fresno in 1990 while he was a physics graduate student, and he has now taught at numerous academic institutions that include the University of Nevada Reno, the University of Phoenix's Reno and Online campuses. He is currently a Laser Technology professor at San Jose City College. He also has industry experience working for some of the world's leading laser manufacturers in Silicon Valley.