

# ***MEDICAL LASER SAFETY OFFICER***

**2024 Edition of the Laser Safety Standards is now Available!  
Time to Review, Refresh, and Revise Your Laser Safety Program.**



Become a  
***CERTIFIED MEDICAL LASER SAFETY OFFICER***

**Co-Sponsored By:**

**The Laser Training Institute™ of  
Professional Medical Education Assn**

*not-for-profit education, est 1978*  
800-342-2704  
www.LaserTraining.org  
www.LaserCertification.org

**Technology Concepts International**

Penny J. Smalley, RN  
pennyjs@aol.com  
773-988-0499

This two day course complies with the American National Standards Institute (ANSI) Z136.3 recommendations on LSO training. The first portion is the Laser Science and Technology, and the second is the administrative, procedural and control aspects of administering a Medical Laser Safety Program and maintaining a safe working environment around medical lasers. Applicable to ***Medical/Surgical/Aesthetic/Dental/Veterinary***.

Every facility **MUST** have an LSO, from large hospitals to small private medical or aesthetic practices. The new 2024 ANSI Z136.3 standards for Safe Use of Lasers in Health Care Facilities is just being released and we'll be reviewing those new standards.

**Your faculty are both sitting members of that committee, and Mrs. Smalley is Vice-Chair.**

**18.1 Hours.** Accredited by the California Board of Registered Nursing with reciprocity to all U.S. States. This program meets National Standards for training of Laser Operators and Safety Officers.

**See the Website “Seminar Dates” for dates and places**

**\$995 for full Two Days Laser Safety Officer, Plus Certification Exam**

**Held at the Laser Training Institute, Grove City OH (Columbus Ohio)**

**ADVANCED LSO HANDS-ON TRAINING OFFERED SEPARATELY ON SUNDAY SEPT 15<sup>TH</sup>.** Call or check the website for more information on this additional day of live-firing of lasers.

**To Register** go to [https://lasertraining.org/Registration\\_Seminar.php](https://lasertraining.org/Registration_Seminar.php) - from the drop down list, choose: **LASER SAFETY OFFICER – 2 DAYS MLSO - \$995**

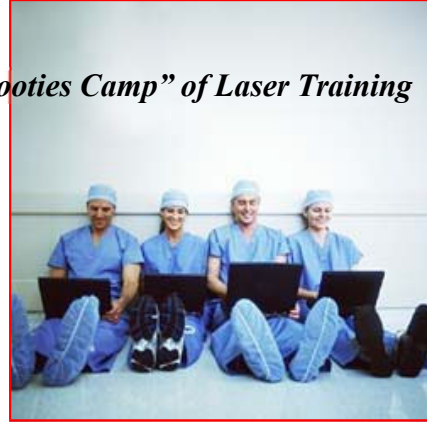
In the “Course Date and City” field, just enter that information so we know which course

V240612

COURSE  
DESCRIPTION: *The "Surgical Booties Camp" of Laser Training*

## *The Laser Course*

Medical Laser Safety Officers



This program is utilized by Nurses, Physicians, Technicians, Aestheticians and Biomedical Engineers to meet the educational requirements for Laser Biophysics, Tissue Interaction and Laser Safety Training required by A.N.S.I.. It trains Laser Safety Officers (LSO's) who have been given the responsibility of establishing the institutions' Laser Safety Program. As part of this course, a basic Laser Powerpoint presentation is provided that can be used for teaching purposes for your own staff. It also includes a full PowerPoint presentation with embedded videos on Airway Laser Safety for Hospital LSO's. The full two day program provides a thorough understanding of all procedures required to ensure compliance of your laser safety program with ANSI, OSHA and TJC, and meet various State requirements, for both Hospitals or private practices.

*The Safety presentations we use in this program use the same Safety material Mr Absten and Mrs Smalley have developed and presented on behalf of the American Society for Laser Medicine & Surgery (ASLMS) for use in training at their annual Scientific meeting and regional courses. We previously presented the Laser Safety portions of that training for the ASLMS. Mrs Smalley received the ASLMS Excellence in Nursing/Allied Health award, and Mr Absten received their "Excellence in Education" award. Learn from the best!*



### **BECOME A CERTIFIED MEDICAL LASER SAFETY OFFICER!**

The NCLC LASER CERTIFICATION PROGRAM for LSO's will be discussed at this program, and Certification Exams and Intensive Review taken at the option of the participant the last afternoon. The ANSI Standards now RECOMMEND the Certification.

This is the "Boot Camp" Laser course to gain a solid foundation in Medical/Surgical Laser Safety, earn a certificate of Laser Training, and optionally sit for the Medical Laser Safety Officer Certification Exam.

**Medical Laser Safety Officer**  
***A Laser Certification Preparation Program***  
**2 Day Course Outline**

**Day 1— 7:30am-4:35pm LASER CONCEPTS IN HEALTHCARE**

**SESSION I:**

7:30 am **Registration & Coffee**

7:55 am **Course Introduction & Welcome** – Penny Smalley RN

8:10 am **Fundamentals of Laser & Light Use (Laser Biophysics), & Tissue Effects**

Gregory Absten

Practical laser biophysics - Types of Lasers & Light Sources - Pulse lengths - Wavelengths  
- Energy Concepts – Dosimetry – Delivery Systems - Thermal Relaxation Times - IPL vs Laser  
Light/Tissue Interaction - Photodynamic Therapy—Pulsing & CW beam delivery— Delivery devices

9:40 am BREAK

9:55 am **Continue with Fundamentals of Laser & Light Use**

12:10pm LUNCH - Provided

12:55 **Ocular Hazards & Safety.** NHZ, NOHD, MPE, O.D., Safety Eyewear, Retinal vs Corneal,  
Aversion Response, Laser Hazard Classes, - Gregory Absten

1:15pm **Administrative Controls.** How National and International Standards Apply to Clinical  
Practice. Engineering Controls. Role of the LSO, DLSO, LSS - Penny Smalley RN

2:45pm BREAK

3:00pm **Risk Management.** Documentation. Education and Training. Technical Management.  
Credentialing and Certification. Audit and Quality Assurance. - Penny Smalley RN

4:10pm **Questions and Discussion** – Greg and Penny

4:35pm **Adjourn**

(430 actual minutes)



**Medical Laser Safety Officer**  
***A Laser Certification Preparation Program***  
**2 Day Course Outline**

**Day 2— 7:30am-4:30pm MEDICAL LASER SAFETY OFFICER**

**SESSION I:**

7:30 am **Coffee & Sign-in**

8:00am **Procedural Controls.** Risk Assessment. Controlled Access.  
Reflection and Inadvertent Exposure. Flammability Hazards. Electrical Hazards  
– Penny Smalley RN

9:30am BREAK

9:45am **Procedural Controls, continued.** – Penny Smalley RN

10:40am **Management and Mitigation of exposure to Surgical Plume**  
- Penny Smalley RN

11:40am **Review and Discussion.** Greg & Penny

11:55pm LUNCH – Provided. We'll take about 15-20 minutes to help ourselves at the catered buffet. Attendees may continue lunch in their seats as we start the review of additional materials, and then the Certification Review.

12:15pm **REVIEW OF MATERIALS ON THUMB DRIVE** - including additional material on organization of your laser program, sample policies and procedures, Laser Safety Inservices for the LSO to present, Airway Laser Safety for surgical staff, a “Cliff Notes” summary of the ANSI Z136.3 standards (you still need a set of standards), and more. See the list at the end of this flyer.

12:30pm **CERTIFICATION REVIEW**—Detailed “Jam Session” Review for NCLC Medical Laser Safety Officer Certification. Attendees will also have been setup for the online practice exam so that you can do this the evening before. Bring your computer or tablet to practice at the hotel.  
(Certification now recommended by ANSI Standards)  
Greg and Penny

1:30 pm **NCLC LASER CERTIFICATION EXAM—PROCTORED TESTING**  
3 hours is allotted for the testing. Many finish within 2 hours. Gregory Absten  
Bathroom breaks as needed. Participants will know their score before leaving. There is no “down-side” if you do not pass the exam the first time. You still receive your accredited Certificate of Laser Training. If you choose not to take the official Certification exam you'll be given a separate written “practice” exam which you'll take and grade yourself. Scores are not reported. This way you still receive the same number of credit hours for the training.

4:30 pm **Adjourn—Awarding of Certificates of Laser Training**  
(You can leave whenever you are finished with the examination)  
(475 actual minutes)



## NCLC Certified Medical Laser Safety Officer (CLSO/M)

[www.LaserCertification.org](http://www.LaserCertification.org)

Offered since 2000, the Medical Laser Safety Officer Certification is administered through the National Council on Laser Certification. We will administer this examination the last afternoon of the course. You may complete the required paperwork at the time of the course and do not need to make advance application. Laser Certified Individuals are listed in the International Laser Certification Registry located at <https://NCLC.clubexpress.com>

**Candidates should review in advance all Certification Requirements contained in the Certification Handbook on the website listed above.**

The Laser Safety Officer Certification is a Professional Credential that reflects your knowledge in this field. This Certification is NOT a requirement of any U.S. State but is recommended by ANSI standards. It DOES reflect your professionalism in this field. You will be setup prior to the course for an online "Practice Exam" that self-grades online. You can take this as many times as you like prior to the actual exam.

### COURSE OBJECTIVES:

- Describe the basic biophysics of laser and light
- Name three primary types of surgical lasers and list their wavelengths
- Explain conceptually how lasers work, and explain the differentiating characteristics of laser
- Discuss the pertinent energy, optical and fiber concepts that are applicable to medical laser use
- Demonstrate an understanding of Laser and Energy concepts
- Describe four different types of laser/tissue interactions and explain the importance of thermal confinement to desirable outcome.
- Demonstrate an understanding of the biological effects of laser on tissue
- Describe the types of hazards which laser presents to personnel and patients, along with some of the related non beam hazards associated with laser procedures.
- Explain the safety precautions and procedures recommended by ANSI during laser procedures.
- Demonstrate an understanding of Laser Hazards, Safety, Precautions and Regulations as recommended by ANSI.
- Explain several types of procedures by specialty in which laser energy may be useful and describe in general terms the instrumentation requirements of these various procedures.



**Provider Approved by the California Board of Registered Nursing  
Provider # CEP 12386.**

**Medical Laser Safety Officer Full program with review and examination: 18.1 contact hours**

**Note: Most State Boards of Nursing have reciprocity for accepting credits for continuing education.  
Accredited Certificates of Attendance will be provided.**

**COURSE FEE: includes all materials - \$995 for both days (LSO's)**

\$100 discount for payments received 20 days in advance of course

Set of ANSI Z136.3 standards available for \$155. Only 1 is required per facility

**To Register go to [https://lasertraining.org/Registration\\_Seminar.php](https://lasertraining.org/Registration_Seminar.php) - from the drop down list, choose the "Laser Safety Officer – 2 Days MLSO - \$995.**

**In the "Course Date and City" field, just enter the date and city you wish to attend.**

**This INCLUDES the CLSO/M Certification exam – a \$295 value.**

### **WHAT ELSE DOES THIS COURSE INCLUDE TO TAKE HOME? This is why it's worth it!**

Laser Safety PPT you give to your staff  
Laser Accidents, Incidents and Complications PPT  
"Cliff Notes" Summary of ANSI standards  
PDF printout of course slides  
Guidance on Laser Safety Audits

Laser Airway Safety PPT for your physicians  
PPT Instructions on setting up your Safety Program  
"Lasers in Medicine & Surgery" Manual  
Article on "How to Buy Lasers – Aesthetic & Surgical"  
Guidance on Surgical Plume Hazards & Management

# FACULTY



**Penny J. Smalley, R.N., C.M.L.S.O.**  
Technology Concepts International

*Penny J. Smalley is an independent nurse consultant and certified medical laser safety officer, with a focus on perioperative safety when working with energy based surgical technologies. Her work includes advocacy and consultation on the management of surgical plume, hazard identification and risk assessment, education and training, safety audits for compliance with standards, policy development and documentation in healthcare facilities, and extensive participation on national and international consensus standards bodies,*

*Current appointments include:*

*Vice Chair - ANSI Z136.3 (American National Standard - Laser Safety in Healthcare)*

*Representative for ACORN to AS/NZ 4173 (Healthcare Laser safety in Australia) (task force for Surgical Plume Evacuation guidelines, Ministry of Health and WorkSafe Australia)*

*Member of IEC (TC76) Laser Standards (project lead on revision of 60825-TR8)*

*Canadian delegate to: ISO (TC121-SC6, 2, 8) for Plume Scavenging and anesthetic equipment*

*Chair, Canadian Standards Association (CSA) – Safe Use of Energy Based Medical Devices (project lead for the merger of laser, plume and electrosurgery standards)*

*Ms. Smalley is listed in Who's Who in American Nursing, has published numerous articles and text chapters, and has taught concepts in laser technology, managing exposure to surgical plume, and development of standards for safety in healthcare, throughout the world.*

Curriculae Vitae available at <https://lasertraining.org/Library/CVs/CV-PennySmalley2023.docx>

(You can copy and paste this into your browser)

## **Gregory T. Absten, B.Sc., MBA, CLSO/M**

**Executive Director**

**Professional Medical Education Assn.**

**Chairman, National Council on Laser Certification**

A 46 year veteran in the Medical Laser Field, Mr. Absten is an internationally recognized lecturer and author on the subject of medical laser applications and safety. He is the Executive Director of Professional Medical Education Assn., Inc. established in 1978- the non-profit group sponsoring this course through the Laser Training Institute division. A Scientific Fellow with the American Society for Laser Medicine and Surgery, he has served as the Course Director for the ASLMS "Laser Biophysics and Safety Courses" for a number of years at their annual scientific meetings and has taught for the Nursing Course and "Fundamentals of Laser" Course of this meeting many times. He served as the Exhibits Chairman for the annual Scientific Meeting for more than 14 years, was a member of the Laser Safety committee, and past member of the Board of Directors. He is a member of the ANSI Z136.3 Committee on the Safe Use of Lasers in Health Care. He is a Laser Safety Consultant and staff educator with The Ohio State University Wexner Medical Center, and has served as a Director or Advisor to many medical laser organizations. He chairs the National Council on Laser Certification. He has taught hundreds of physician, nursing, aesthetic, and technical repair laser courses and has been actively involved with hands-on physician training in both surgical lasers and endoscopic procedures in most specialties. His initial clinical background in the 70's involved Critical Care patient management as a Registered Respiratory Therapist, while he built lasers at home.



Professional Medical Education Association provides the nursing accreditation for the annual American Society of Lasers in Medicine & Surgery scientific meeting.

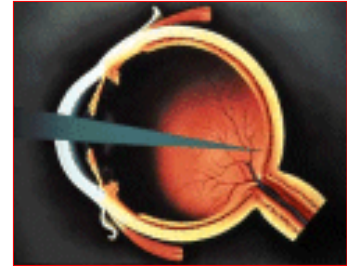
Curriculae Vitae available at <https://lasertraining.org/Library/CVs/Absten-CV2023.pdf>

(You can copy and paste this into your browser)



## WHY ATTEND?

- Earn the ANSI Recommended Professional Credentials of Certified Medical Laser Safety Officer (CLSO/M)
- Familiarize yourself with ANSI 136.3 Laser Standards
- Great for Staff turnover and staying current
- This is the MAINSTAY LASER SAFETY TRAINING PROGRAM in the United States
- Courses consistently rated excellent by past attendees
- 18.1 Nursing Credits for the 2 days
- Ensure your compliance with OSHA and TJC - You MUST have a Laser Safety Officer
- Learn about NCLC Laser Certifications for Medical Laser Safety Officers
- Obtain all the teaching materials we provide at the course so you can go home and train YOUR staff, including Laser Airway Safety



*As a recent attendee stated: “This is a very practical course..... Though I was initially intimidated by all the material I was expected to learn about lasers, I was pleased to see that it was all presented in a clear and easy-to-understand manner for a staff nurse such as myself to comprehend and use. I’d recommend this program”.*

**Our nonprofit provides professional education and training with  
no commercial bias or conflicts of interest**

### **HOTEL AND CLASSROOM:**

For Ohio, we have not reserved room blocks, but we recommend staying at the Drury Inn and Suites, Columbus Grove City Ohio. Their website is <https://www.druryhotels.com>. This is a very nice hotel with free evening buffet dinners and drinks (alcohol), and free breakfasts each morning. It’s 7 minutes to the classroom. Reserve as soon as possible. Their address is 4109 Parkway Centre Drive, Grove City OH 43123. Tel: 614.875.7000/

Our Ohio Classroom is located at 3142 Broadway, Suite 201, Grove City OH 43123. You’ll find a map, and other local hotels and restaurants listed at <https://lasertraining.org/Office-OH.html>. Our Ohio classroom is the only location where we also offer the additional Advanced MLSO Live-Firing Hands-On day with lasers, and that’s offered only once or twice per year. You can come back and just attend the one day of the Live-Firing course if you have LSO training.

Other cities will have the information on location listed on our “Seminar Dates” page on the website <https://LaserTraining.org>



**Your Faculty:**

**PENNY SMALLEY – Vice Chair ANSI Z136.3  
GREGORY ABSTEN – Z136.3 Committee Member**

*If you're looking for training,  
why not get it from the Best?*