

EH&S Fast Facts

THE PRINCIPAL INVESTIGATOR'S LASER SAFETY TRAINING RESPONSIBILITIES



Principal Investigators (PI) who use lasers or laser systems at UCR are responsible for assuring that appropriate training is provided and documented for all individuals who operate or will be in the controlled area during the operation of the laser or laser system.

Laser Systems Training

- The PI is responsible for the direct supervision, training, and documentation of the safety training for all new or inexperienced laser users, including faculty, staff, students, maintenance and service personnel
 - The level of supervision and training should correspond with the degree of potential laser hazards. The following topics should be discussed:
 1. Fundamentals of laser operation (physical principles, construction, standard operating procedures, lab rules)
 2. Biological effects of laser radiation on the eyes and skin
 3. Hazards presented by specular and diffuse reflections
 4. Other associated hazards of lasers (electrical, chemical, noise)
 5. Laser and laser system classifications
 6. Control measures
 7. Overall management and employee responsibilities
 8. Medical surveillance required for operators of class 3b or 4 systems
- Employee training should also include cardiopulmonary resuscitation (**CPR**) if employees are working with or around high voltage systems
- Documentation of the above topics should be acknowledged by the PI and employee, and maintained in the lab's Injury/Illness Prevention Plan (**IIPP**)
 - Experienced laser operators using a laser or laser system at UCR for the first time must also be trained by the PI, on all of the above topics
 - The ANSIZ 136.1 4.4.3 requires laser training for all operators and repair staff for class 3b (>5mW) and 4 (>500 mW) laser systems

EH&S can provide (on request) a class on laser safety and a video that covers fundamentals of lasers and laser applications, laser physics, radiometry, and common applications of different lasers and laser systems. The video is intended to supplement a lab's general laser safety awareness training. Visit www.ehs.ucr.edu for additional information or call EH&S at 827-5528 if you have any questions.