

# **LASER OPTICS LAB**

## **LASER SAFETY PROGRAM**

### **GENERAL**

1. John D. Mays, Director of the Laser Optics Lab (LOL), is the designated Laser Safety Officer for all activities associated with the LOL and the Laser Optics Society (LOS).
2. The door to the LOL is keyed separately from the building master key and can only be accessed by a specific key for the lab. Typically, only the Director of the LOL will be accessing the lab for project work. Keys are not available to other faculty or to janitorial personnel. However, there are five keys to the lab, which are held by the following individuals:
  - a. John Mays, Lab Director
  - b. Carol Vaughn
  - c. Bill Hicks
  - d. Henry Klingeman
  - e. Jeffrey Mays, Operations Manager
3. Signage for Class 3B and 3R lasers will be posted.

### **SAFETY TRAINING REQUIRED FOR STUDENT MEMBERS OF THE LASER OPTICS SOCIETY**

1. Before working in or around the LOL, each student participant must first watch the following safety training videos:
  - a. Mastering Light  
(20 minute DVD available at the LOL)
  - b. Harvard Laser Safety Videos 1,2,3  
(Approx 15 minutes each, on-line at <http://www.safety.seas.harvard.edu/movies/list.html>)
2. Before working in or around the LOL, each student participant must read and sign, and have a parent read and sign, the Laser Optics Society Safety Agreement available from the Director of the LOL.

### **GENERAL SAFETY RULES**

1. Students will comply at all times with the stipulations outlined in the LOS Safety Agreement.
2. If any laser with a power output above 5 mW is on, all persons working in the lab must wear appropriate eye protection specifically designated for the particular laser in use by the Laser Safety Officer.
3. Students may not operate any laser above 5 mW without direct supervision by the Laser Safety Officer.
4. Students may not operate any invisible laser at any power without direct supervision by the Laser Safety Officer.
5. While working on beam alignment for any laser, beam-blocking cards will be used to reduce the possibility of a stray laser beam.
6. All beams must be terminated before leaving the optics table.
7. No individual may enter the Laser Optics Lab with a laser on unless his or her eyes are at least six inches above the beam. At typical beam heights this will require students to be at least 4 ft 6 in tall unless a platform is available to stand on.
8. Students may not open laser housings for any reason.

## **BEAM ALIGNMENT PROCEDURES**

1. At all times remain aware of where the beam is and where it may go during alignment.
2. Maintain awareness of others in the room, and make sure that they are aware that the laser is on.
3. All wristwatches, shiny belt buckles, jewelry, and other shiny accessories must be removed before working in the lab with the laser on.
4. Components are not to be placed in the beam or removed from the beam while the laser is on. First block the beam, then insert the optical component, then remove the block.