

## Core Laser Safety Practices

1	<ul style="list-style-type: none"><li>• Select proper eyewear in accordance with laboratory specific procedures; check eyewear condition before each use</li><li>• Ensure all personnel are wearing appropriate eyewear as required</li></ul>
2	<ul style="list-style-type: none"><li>• Be knowledgeable of all safety controls and equipment safety features</li></ul>
3	<ul style="list-style-type: none"><li>• Remove or cover jewelry, watches, and other reflective objects</li></ul>
4	<ul style="list-style-type: none"><li>• <b>Communicate:</b> alert others prior to turning on laser, opening shutters, or creating new beam paths</li></ul>
5	<ul style="list-style-type: none"><li>• Exclude unnecessary personnel during alignment</li></ul>
6	<ul style="list-style-type: none"><li>• Have good diagnostics available for indirect viewing of the laser beam such as fluorescent cards, CCD cameras, or infrared (IR) viewers</li></ul>
7	<ul style="list-style-type: none"><li>• Keep primary and stray beams in horizontal plane below eye level when possible</li><li>• Never bring eyes near plane in which the laser propagates</li></ul>
8	<ul style="list-style-type: none"><li>• Check for and block stray beams: when placing a new optical component in the beam, locate and block all stray reflections before proceeding to next step</li></ul>
9	<ul style="list-style-type: none"><li>◦ Use beam blocks: block the beam upstream until beam is needed; place a block downbeam of optic path being aligned</li></ul>
10	<ul style="list-style-type: none"><li>• Use special caution when using periscopes, beam-splitting polarizers, and other optics that may generate out-of-plane beams: secure appropriate beam blocks to contain possible stray beams</li></ul>
11	<ul style="list-style-type: none"><li>• Use <i>Class 1 enclosures</i> to eliminate laser hazards when possible</li><li>• Use barriers, beam tubes, and table enclosures or side shields when possible</li></ul>
12	<ul style="list-style-type: none"><li>• Use irises to aid in alignment</li></ul>
13	<ul style="list-style-type: none"><li>• Use minimum intensity needed, and use low-power alignment lasers when possible</li></ul>
14	<ul style="list-style-type: none"><li>• Secure all optics to table</li><li>• Practice good housekeeping</li></ul>
15	<ul style="list-style-type: none"><li>• Include <i>control of hazardous energy</i> practices in lab standard operating procedures i.e. Control of Hazardous Energy (CoHE) procedures e.g. lockout-tagout (LOTO) for electrical and zero energy verification for laser</li></ul>