

Occupational Health & Safety System	
OHS Standards	Number: WP-09
Lasers and Laser Systems	

PREAMBLE

“LASER” is an acronym for Light Amplification by Stimulated Emissions of Radiation. The purpose of this standard is to ensure the safe use of lasers in research by identifying hazards, providing recommendations for proper use, providing for medical surveillance and for laser safety training for individuals using lasers. To achieve this goal, Algonquin College has adopted the American National Standard for the Safe Use of Lasers, ANSI Z136.1-2000 and ANSI Z136.5-2000, both of which are recognized by the Ministry of Labour.

Most lasers are capable of causing eye injury to anyone who looks directly into the beam or specular reflections. In addition, diffuse reflection of a high-power laser beam can produce permanent eye damage. High-power laser beams can burn exposed skin, ignite flammable materials, and activate toxic chemicals that release hazardous fumes, gases, debris, and radiation. The equipment and optical apparatus required to produce the lasing action and control and direct the laser beam also introduce additional hazards associated with high voltage, high pressure, cryogenics, noise, radiation, and toxic gases.

REQUIREMENT

1. Applicable American National Standards Institute (ANSI) standards are the minimum standards for laser safety at Algonquin College.
2. The College Occupational Health & Safety (OHS) section will administer a Laser Safety Program which identifies responsibilities, hazards, safe work practices and training requirements related to the safe use of lasers. The laser safety program applies for all students and staff.
3. Managers, supervisors and staff are all responsible to ensure that staff and students under their direction abide by all applicable rules and procedures set forth in the program.