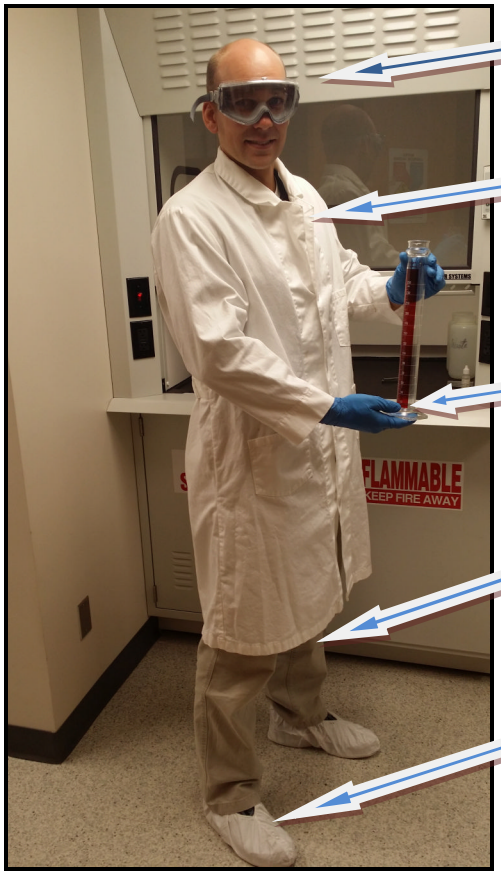
BSU Laboratory PPE Selection Guide (by Task)

	If your task/activity involves:	Use the following PPE:
Chemicals	Solids of low or moderate toxicity	○ Disposable gloves – use resistance/compatibility chart
	Minimal amounts of liquids (less than 0.1 liters) with acute or chronic toxicity	○ Safety glasses or goggles ○ Appropriate chemical-resistant gloves ○ Clothing covering body – long sleeves and pants, closed-toe shoes
	More than minimal amounts of liquids with acute or chronic toxicity (pure chemicals, mixtures or solutions)	○ Safety glasses or goggles ○ Appropriate chemical-resistant gloves ○ Lab coat ○ Acid-resistant apron if more than 4 liters of highly corrosive chemicals used ○ Consider flame-resistant, e.g., Nomex, lab coat if more than 4 liters of flammable liquids used
	Cryogenic liquids	○ Safety glasses or goggles ○ Face shield required if handling cryovials stored in liquid phase ○ Insulated cryogenic gloves ○ Lab coat recommended
	Potentially-explosive compounds	○ Safety goggles ○ Face shield ○ Heavyweight gloves ○ Nomex or equivalent fire-resistant lab coat
	Pyrophoric (air-reactive) solids or liquids	○ Safety glasses or goggles ○ Face shield recommended ○ Nomex or equivalent fire-resistant gloves ○ Appropriate chemical resistant gloves ○ Nomex or equivalent fire-resistant lab coat
	Particularly hazardous substances including carcinogens, reproductive toxins, and reagents of high acute toxicity	○ Safety glasses or goggles ○ Appropriate chemical resistant gloves ○ Lab coat ○ Respirators as needed
Biological Materials	BL1 microorganisms or viruses	○ Disposable gloves
	BL2 microorganisms, viruses, viral vectors, human materials or Old World primate materials	○ Disposable gloves ○ Lab coat
	Procedures outside of the Biosafety Cabinet without splatter guard when splashes or sprays are anticipated	○ Safety glasses or goggles ○ Disposable gloves ○ Lab coat
Radiation	Unsealed radioactive materials or waste	○ Safety glasses if there is a splash potential or if 10 milliCuries or more of 32P is used ○ Nitrile or other appropriate gloves ○ Lab coat
	Class 3B or 4 laser	○ Appropriate eye protection
	o and if UV laser	○ Gloves ○ Lab coat
	Laser(s) modified by optics	○ Appropriate eye protection
	Open ultraviolet light source	○ Safety glasses or goggles with UV protection
	o and if face enters UV beam	○ UV face shield
	o and if hand enters UV beam	○ Gloves
	o and if body enters UV beam	○ Lab coat
	Infrared-emitting equipment	○ Appropriately-shaded goggles ○ Lab coat
Other Hazards	Handling hot surfaces and objects such as autoclaved materials and heated glassware	○ Heat-resistant gloves ○ Lab coat
	Glassware under pressure or vacuum	○ Safety glasses or goggles ○ Face shield recommended ○ Lab coat
	Cutting and connecting glass tubing	○ Safety glasses or goggles ○ Cut-resistant gloves
	Sonicator or other loud equipment	○ Ear plugs or ear muffs

(*Acknowledgement: Table adopted from Harvard University document*)

BSU Laboratory PPE Selection Guide



Safety Glasses or Goggles

Lab Coat

Chemically Resistant Gloves

Long Pants

Closed Toe Non-mesh shoes (or resistant covers)

Standard Personal Protective Equipment (PPE) for Laboratory Work with Hazardous Chemicals or Biosafety Level 2 or Above.

The PPE shown on the left should be modified as prescribed in the *Laboratory PPE Selection Guide* attached -- or as determined by a hazard assessment of the work being performed and the chemicals, biological agents, or other materials or equipment being used in the laboratory or procedure.

1. **Cotton clothing that provides protection from chemical spills should be worn. Clothing which completely covers the legs must be worn at all times in the laboratory. Shorts and skirts that do not completely cover the leg are inappropriate apparel in the laboratory and are not permitted. Synthetic fabrics should be avoided.**
2. **Wear shoes which completely cover the feet. Sandals, perforated shoes, open-toed shoes, open-backed shoes, or high-heeled shoes are not permitted in the laboratory. Leather shoes with slip-resistant soles are preferred.**
3. **For your safety, hair longer than shoulder length and loose clothing must be confined when working in the laboratory.**
4. **Wear disposable gloves that are provided when working in the laboratory. Inspect the gloves for defects before wearing. Verify the gloves are resistant to the chemicals being handled. Always remove gloves and wash hands before exiting the laboratory. Upon removal, discard disposable gloves in the wastebasket or infectious waste container as appropriate. Non-disposable gloves may be provided for certain tasks – cryogenics, acids, etc.**
5. **For your protection, jewelry should not be worn while working in the laboratory. Dangling jewelry can become entangled in equipment and can conduct electricity. Chemicals can seep under the jewelry and cause injuries to the skin. Chemicals can ruin jewelry and change its composition.**
6. **<u>Always</u> check the Safety Data Sheets (SDSs), ChemTracker, SOPs, and other resources for the necessary safety precautions for the chemicals used in your procedure or to which you may be exposed in the laboratory.**

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