

## Personal Protective Equipment for Students

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This procedure is intended to describe Oakland Community College's (OCC) expectations for student selection, purchase, use, and maintenance of personal protective equipment (PPE) while attending classes or otherwise using the facilities at any OCC campus, facility, or field location. This procedure will also address appropriate attire to be worn in areas with recognized hazards at OCC campuses and facilities. The requirements found in the *OCC Personal Protective Equipment Program* for employees will also apply to students except where contradicted or specified below, in which case the student-specific information found below will apply.

### Areas of Concern

Areas with recognized hazards include, but are not limited to:

- Art Labs
  - Welding and Metal Fabrication
  - Foundries
  - Painting
  - Ceramics (esp. Kiln Use)
- Automotive Labs
  - Auto Repair
  - Auto Refinish
  - Diesel
- Construction Labs
- Culinary Labs
- Dental Labs
- Health Professions Labs
- Industrial Electrical
- Landscape Labs
- Machine Shop Labs
- Nursing
- Photography
- Robotics Labs
- Science Labs
  - Chemistry
  - Biology
  - Microbiology
  - General Science
  - Geology
  - Physics
  - Anatomy/Physiology
- Welding Labs

### Selection of Personal Protective Equipment

The selection of appropriate PPE is based upon potential hazards to which a student could be exposed. For instance, where chemical exposures are possible, chemical splash goggles and chemical resistant gloves are typically standard, with a face shield and chemical resistant apron being possible additions.

Students in areas where they may be exposed to hazards that might result in illness or injury are required to wear personal protective equipment (PPE), the selection and use of which depending upon the nature

of the hazards. Faculty (Adjunct or Full-Time) are required to notify students of this requirement prior to commencement of activities in hazardous areas. Students who do not have appropriate PPE must not be allowed near areas or activities that pose a threat of illness or injury.

The criteria for PPE selection include:

- The PPE must be designed to protect against actual and potential hazards in the work area
- The PPE must fit the student
- The PPE must be comfortable and not interfere with the work to be done
- The PPE must be constructed so that it can be cleaned and sanitized

Students are responsible for the entire cost of all personal protective equipment mandated by the college. Under some circumstances, the college may loan students personal protective equipment for use during a class. The instructor is responsible for making such arrangements with an individual student.

If there is a question as to whether PPE are required for a class in a specific area or for certain activities, the instructor for said class should contact the Manager of Environmental Health and Safety to determine the applicability of these requirements.

### **Proper Attire in Laboratories**

General rules for attire in chemical laboratories include (as excerpted from the NIOSH *School Chemistry Laboratory Safety Guide* (2007) :

- Wear the appropriate PPE for the hazards in the lab, including chemical splash goggles and chemical resistant gloves.
- Shoes should cover the entire foot. In addition, ideally the shoes should have low heels and non-slip soles. This excludes most sandals, open-toed shoes, open-backed shoes, and high-heeled shoes.
- Pants and skirts should cover the legs. This excludes shorts or short skirts.
- Shirts and blouses should not expose the torso. Shirts and blouses can be short or long sleeved, but loose sleeves must be either rolled up or secured.
- Neck ties, scarves, and jewelry should not be worn.
- Long hair should be secured.
- If available, full-length, long-sleeved lab coats or chemical-resistant aprons should be worn.

### **Standard PPE Listing by Laboratory**

The following PPE should be available for students. The PPE indicated are only required when specific hazards are present (e.g., bump caps when working under automobiles on a lift), and are not necessarily required for continuous use in the lab.

Items with an asterisk (\*) are to be purchased by the student. Unmarked items will be purchased and maintained by the college. Items in *italics* are recommended, but optional.

<b>Discipline</b>	<b>PPE</b>
Anatomy and Physiology	Chemical Splash Goggles* Chemical Resistant Gloves (Nitrile, Vinyl, etc. NO Latex) <i>Chemical Resistant Apron (Rubber, Tyvek, etc.)*</i>
Art, Ceramics (Kiln Use)	Heat Resistant Gloves Heat Resistant Apron Safety Glasses or Impact Goggles*
Art, Foundry	High-Temperature Foundry Gloves Fire Hood Aluminized Jacket Aluminized Leggings or Spats Aluminized Apron Foundry Shoes Thermal Protective Face Shield Safety Glasses* Hard Hat
Art, Painting	Chemical Splash Goggles* Chemical Resistant Gloves (Nitrile, Vinyl, etc. NO Latex)
Art, Welding and Metal Fabrication	Safety Glasses or Impact Goggles* Particulate Filter Respirator (Close-Fitting, N95+)* Face Shield* Welding Goggles or Shield* Thermal Protective Gloves (Leather or equivalent)* Welder's Apron* Welder's Jacket*
Automotive Refinish	Chemical Splash Goggles* Safety Glasses or Impact Goggles (see NOTE)* Supplied Air Respirator Particulate Filter Respirator (Close-Fitting, N95+)* Face Shield* Steel or Composite-Toed Workboots or Shoes* Welding Goggles or Shield* Thermal Protective Gloves (Leather or equivalent)* Welder's Apron* Welder's Jacket* <i>Chemical Resistant Apron (Rubber, Tyvek, etc.)*</i>
Automotive Repair	Chemical Splash Goggles* Safety Glasses or Impact Goggles (see NOTE)* Chemical Resistant Gloves (Nitrile, Vinyl, etc. NO Latex) Face Shield* Bump Cap* Steel or Composite-Toed Workboots or Shoes* Welding Goggles or Shield* Thermal Protective Gloves (Leather or equivalent)* Welder's Apron* Welder's Jacket* <i>Chemical Resistant Apron (Rubber, Tyvek, etc.)*</i>
Biology	Chemical Splash Goggles* Chemical Resistant Gloves (Nitrile, Vinyl, etc. NO Latex) <i>Chemical Resistant Apron (Rubber, Tyvek, etc.)*</i>
Chemistry	Chemical Splash Goggles* Chemical Resistant Gloves (Nitrile, Vinyl, etc. NO Latex) <i>Chemical Resistant Apron (Rubber, Tyvek, etc.)*</i>

<b>Discipline</b>	<b>PPE</b>
Construction	Safety Glasses or Impact Goggles* Work Gloves* Hearing Protection* Hard Hat* Workboots*
Culinary	Chemical Splash Goggles* Chemical Resistant Gloves (Nitrile, Vinyl, etc. NO Latex) Cut Resistant Gloves* <i>Chemical Resistant Apron (Rubber, Tyvek, etc.)*</i>
Dental	Safety Glasses or Impact Goggles* Particulate Filter Respirator (Close-Fitting, N95+)* Chemical Resistant Gloves (Nitrile, Vinyl, etc. NO Latex) Lab Coat*
Diesel	Chemical Splash Goggles* Safety Glasses or Impact Goggles (see NOTE)* Chemical Resistant Gloves (Nitrile, Vinyl, etc. NO Latex) Face Shield* Steel or Composite-Toed Workboots or Shoes* Welding Goggles or Shield* Thermal Protective Gloves (Leather or equivalent)* Welder's Apron* Welder's Jacket* <i>Chemical Resistant Apron (Rubber, Tyvek, etc.)*</i>
EMT	Safety Glasses or Impact Goggles* Particulate Filter Respirator (Close-Fitting, N95+)* Chemical Resistant Gloves (Nitrile, Vinyl, etc. NO Latex)
General Science (Wet Labs)	Chemical Splash Goggles* Chemical Resistant Gloves (Nitrile, Vinyl, etc. NO Latex) <i>Chemical Resistant Apron (Rubber, Tyvek, etc.)*</i>
Geology (Wet Labs)	Chemical Splash Goggles* Chemical Resistant Gloves (Nitrile, Vinyl, etc. NO Latex) <i>Chemical Resistant Apron (Rubber, Tyvek, etc.)*</i>
Health Professions	Safety Glasses or Impact Goggles* Particulate Filter Respirator (Close-Fitting, N95+)* Chemical Resistant Gloves (Nitrile, Vinyl, etc. NO Latex) Lab Coat*
Industrial Electrical	Safety Glasses or Impact Goggles* Arc Flash Protective Face Shield Insulating Gloves* Flash Coat
Landscape	Chainsaw Protective Chaps Chainsaw Protective Gloves* Safety Glasses or Impact Goggles* Face Shield Hard Hat Hearing Protection* Cut Retardant Foot Protection*
Machine Shop	Safety Glasses or Impact Goggles* Chemical Resistant Gloves (Nitrile, Vinyl, etc. NO Latex) Face Shield* Heat Resistant Gloves (for Melted Wax).* <i>Chemical Resistant Apron (Rubber, Tyvek, etc.)*</i>

<b>Discipline</b>	<b>PPE</b>
Microbiology	Chemical Splash Goggles* Chemical Resistant Gloves (Nitrile, Vinyl, etc. NO Latex) <i>Chemical Resistant Apron (Rubber, Tyvek, etc.)*</i>
Nursing	Safety Glasses or Impact Goggles* Particulate Filter Respirator (Close-Fitting, N95+)* Chemical Resistant Gloves (Nitrile, Vinyl, etc. NO Latex) Lab Coat*
Photography	Chemical Splash Goggles* Chemical Resistant Gloves (Nitrile, Vinyl, etc. NO Latex) <i>Chemical Resistant Apron (Rubber, Tyvek, etc.)*</i>
Physics	Safety Glasses or Impact Goggles* Laser Glasses or Goggles (Class III lasers only)
Robotics	Safety Glasses or Impact Goggles*
Welding	Welding Goggles or Shield* Face Shield* Thermal Protective Gloves (Leather or equivalent)* Welder's Apron* Welder's Jacket*

NOTE: Chemical Splash Goggles rated as compliant with ANSI Standard Z87.1, et al, fulfill the requirements for safety glasses and impact goggles and therefore can replace these items on the above list.

Departments should maintain a limited stock of PPE to accommodate lost or damaged student PPE during a class period. Departments can decide to provide PPE to students for specific work or experiments that require unique or limited-use PPE (e.g., laser glasses).

### **Maintenance and Care**

All student PPE must be kept clean and in good repair. Instructors are responsible to ensure that damaged or defective PPE are cleaned, repaired, or replaced, as necessary before allowing a student to work in a lab.

PPE provided by the college must be kept clean and in good repair. The lab Paraprofessional is responsible for maintaining all college-provided PPE. Maintenance and care of PPE will include a thorough inspection and cleaning of all PPE after each use. The only exception to cleaning after each use is if the PPE is assigned to a specific student, in which case the PPE need only be cleaned by the Paraprofessional at the time the equipment is returned by the student. Damaged or defective PPE will be repaired or replaced, as necessary. Unless otherwise indicated by the PPE manufacturer, cleaning includes washing with soap and water (preferred), or by thorough wiping with alcohol swabs or other disinfecting agent (only if soap and water is not available). It is not sufficient to just disinfect the PPE, as with an ultraviolet cabinet.