

Personal Protective Equipment Program

Responsible Administrator: Belinda Manalac
Revised: February 2024

Summary:

| | |
|---------------------------------|----|
| 1. Program Description | 1 |
| 2. Scope | 1 |
| 3. Definitions | 2 |
| 4. Responsibilities | 4 |
| 5. Program Components | 7 |
| 6. Reporting Requirements | 10 |
| 7. References | 10 |

[Appendix A Guideline to Selection of Personal Protective Equipment](#)

1. Program Description

In order to protect the health and welfare of each employee and to achieve compliance with state, federal and local regulations, and appropriate protective equipment is required in areas where there may be a risk of injury or exposure to hazardous substances or conditions. This program contains general requirements to protect University employees from various hazards encountered in their work area.

2. Scope

The use of appropriate personal protective equipment applies to employees, performing tasks or entering areas that require specific Personal Protective Equipment (PPE).

Program Exceptions: The program does not apply to: Uniforms (i.e., attire, excluding shoes, which are worn for the purpose of ready visual identification) worn by personnel in Police, Parking and Guard occupations. Please refer to Human Resources for specific requirements as defined in negotiated contracts.

3. Definitions

Eye/Face Protection - Equipment designed to provide protection to the face and eyes during exposure to such hazards as flying particles, molten metal or sparks, liquid chemicals, acids or caustic liquids, or potentially injurious light radiation (i.e., lasers, welding, etc.)

Foot Protection - Equipment designed to provide protection to the feet and toes during exposure to situations with the potential for foot injuries such as falling or rolling objects, chemical or liquid exposures, piercing objects through the sole or uppers, and/or where the employee's feet are exposed to electrical hazards.

Hand Protection - Equipment designed to provide protection to the hands during exposures to potential hazards such as sharp objects, abrasive surfaces, temperature extremes and

chemical contact. Hand protection is selected based upon the hazard and performance characteristics of the gloves.

Hazard - A potential for harm. The term is often associated with an agent, condition, or activity (a natural phenomenon, chemical, mixture of substances, process involving substances, source of energy or a situation or event) that if left uncontrolled, could result in an injury, illness, loss of property or damage to the environment. Hazards are intrinsic properties of agents, conditions or activities.

- Hazard Analysis: A term used to express the complete process of hazard identification, evaluation and control.
- Hazard Control: A barrier; such as a device, measure or limit; used to minimize the potential consequences associated with a hazard.
- Hazard Evaluation: The qualitative and, whenever possible, quantitative description of the inherent properties of an agent or situation having the potential to cause adverse effects.

Hazard Assessment - The process utilized to identify hazards in the workplace and to select the appropriate Personal Protective Equipment to guard people against potential hazards.

Hazardous Materials - Chemical or biological agents that have been generally accepted as a health or physical hazard. Unsealed radioactive materials are also included as “hazardous materials.”

Head Protection - Equipment designed to provide protection to the head during exposure to potential hazards such as falling objects, striking against low hanging objects, or electrical hazards.

Hearing Protection - Equipment designed to provide protection to an individual's hearing during exposure to high noise levels.

Job Safety or Hazard Analysis - A systematic approach to address hazards by looking at a task and focusing on the relationship between the laboratory worker, the task, the tools and the work environment to identify the hazards and reduce the risks.

Personal Protective Equipment (PPE) - Includes all equipment designed to provide protection to the wearer from potential hazards to the eyes, face, hands, head, feet, ears, and extremities.

Physical Hazards: Physical hazards are identified as substances, equipment, or activities that can threaten physical safety. Physical hazards can include but are not limited to: impact (falling objects), fall hazards, extreme pressures, temperature extremes (heat/cold), noise, vibration, electrical, light (optical), welding, cutting, brazing.

Respiratory Protection - Equipment designed to provide protection to the wearer from potential inhalation hazards such as vapors, mists, particulates, and gases.

4. Responsibilities

Has overall responsibility for compliance with health and safety requirements at all facilities and programs under her/his control.

4.1 University is responsible for promoting a safe working environment in all skilled trades, auxiliary services, and research and teaching laboratories on campus.

4.2 Departments are responsible for communicating and promoting this program within their unit and enforcing the Policy in areas under their control.

- Department Requirements: Each department may disseminate and enforce more stringent PPE requirements than those identified by the unit's work area through

- conducting the hazard assessment or Standard Operating Procedures (SOP's)
- Departmental Support: Supporting the Supervisors by implementing department-wide programs and/or services.

4.3 Supervisors are responsible for complying with this policy and ensuring their staff complies with this policy. Supervisors are also responsible for ensuring their staff receives both the required PPE identified in the hazard assessment and documents their training on the proper use of their PPE.

- Hazard assessments will be conducted initially or when work practices change, reviewed annually, and maintained in the department.
- The supervisor must determine, based on the Workplace Hazard Assessment, the correct PPE necessary to perform work activities in a safe manner.
- Each Supervisor is responsible for ensuring that employees wear the required PPE

4.4 Employees are responsible for knowing the PPE requirements for areas in which they work or enter, and for properly wearing PPE as established in this policy and in the hazard assessment. All workers are responsible for completing training, for knowing how to use PPE, for knowing how to properly put on and take off required PPE, and for knowing how to care for and maintain PPE. They are responsible for informing others in the area of these requirements and reporting unsafe conditions to their supervisor, or EHS. Employees are NOT responsible for purchasing their own PPE, however is responsible to ensure that their PPE is in good operating condition and to report to the supervisor any defective PPE or need for replacement. As applicable, a staff employee may address issues of noncompliance with this Policy through the complaint resolution processes described in Collective Bargaining Agreement. Avoid altering the PPE as this may compromise the effectiveness of the PPE.

4.5 Environmental Health and Safety (EHS) is responsible for maintaining the PPE program, of which the Research Laboratory PPE program is part of. This includes:

Implementation Tools: Developing and distributing PPE assessment and evaluating job hazards, or selection of appropriate PPE using ([Appendix A Guideline to Selection of Personal Protective Equipment](#))

- Technical Assistance: When requested, assist Supervisors with PPE assessments and training.
- Quality Assurance Checks: Conducting periodic quality assurance checks of PPE compliance in work areas which includes:
 - (a) Review PPE assessment for completion;
 - (b) evaluate PPE use; and
 - (c) communicate those findings, as appropriate, to Supervisor.

In cases where work activities pose an immediate danger to life or health, designated EHS staff have the responsibility and authority to order the temporary cessation of the activity until the hazardous condition is abated. For assistance, contact EHS at 949-824-6200 or email safety@uci.edu.

5. Program Components

The purpose of personal protective equipment (PPE) is to protect individuals, exposed to health and safety hazards, from the risk of injury by creating a barrier against workplace hazards. PPE includes devices for head protection, eye and face protection, protective clothing, hand protection, foot protection, hearing and respiratory protection. Using PPE requires hazard awareness and training on the part of the user.

PPE is not a substitute for good engineering or administrative controls or good work practices but should be used in conjunction with these controls.

5.1 Job Hazard Analysis

In order to be able to choose the proper PPE, the individual must be aware of what hazards exist in the workplace. This involves obtaining information on the types of hazards present, the toxicity of the materials involved, and what other options are available to control exposure. General information about chemicals may be found in Safety Data Sheets (SDS). The chronic and acute effect of chemicals, biological and radiological materials should also be assessed. The next step would be to implement the control measures necessary to prevent exposure into the operational procedures.

5.2 Head Protection

Head injuries are commonly caused by impact from falling or flying objects and falling or walking into hard objects. PPE devices such as hard hats may protect you from objects falling on your head and, to a limited degree, from electrical shock or burns. Hard hats should be worn in areas where there is potential for head injuries.

5.3 Eye and Face Protection

Eye protection must be worn where there is potential for injury to the eyes or face from small particles, toxic chemicals, flying objects or particles, large objects, thermal hazards. According to the types of and extent of hazards, different PPE should be worn. PPE for the face and eyes includes devices such as safety glasses, goggles, and face shields. These must always remain clean and free of contaminants. Safety glasses or goggles must always be worn in laboratory areas.

For who wear prescription glasses, side shields must be permanently affixed to the frames to protect eyes from flying particles. Side shields and eyeglass frames must meet ANSI Z87.1 requirements and must not be removed. The employee's home department is responsible for paying and covering the cost of prescription eyewear materials (frames and impact resistant lenses). Employees are responsible for any additional professional fees associated with the eye examination, fitting and dispensing. This may be subject to change based on union contract agreements. Check with the campus Human Resources Officer for details.

Temporary or part-time employees should be provided temporary safety glasses that can be placed over their personal prescription glasses.

5.4 Body Protection

Protective clothing, such as aprons, should be worn when handling or working adjacent to hazardous materials. This will prevent the contamination of skin and clothing.

5.5 Hand Protection

Selecting the proper gloves is very important since it is our hands that are often used to handle hazardous materials. These materials usually consist of caustic or toxic chemicals, biological substances, electrical sources, or extremely cold or hot objects that may irritate or burn your hands. In addition, traumatic injuries such as cuts, sprains and punctures may also occur.

With the wide range of hazards, there also exists a wide range of gloves that may be used as PPE. It is important to know that not all gloves are protective against all chemicals. To choose the proper chemical resistance gloves for a specific chemical,

check with the approved vendor for chemical and safety glove guide (e.g., [Grainger](#))

5.6 Foot Protection

Injuries that may occur when the proper footwear is not worn are chemical and heat burns from spills and splashes of acids and caustics, compression injuries, electrical shocks, and slipping.

Wearing the proper footwear is therefore, very important when working in areas where physical and chemical hazards are present. Close-toed, heeled shoes must always be worn in laboratory areas where chemicals are present.

The Office of the President, Office of Risk Services (OPRS) provides oversight and funding for the University of California (UC) Slip-Resistant Footwear (SRF) Program. The goal of the UC SRF Program is to reduce the frequency and severity of slip-and-fall incidents throughout the UC system by providing high- quality, slip-resistant footwear to employees whose job duties routinely expose them to significant slip-and-fall hazards (e.g., dining/nutrition services, custodial/environmental services, patient care, and animal care employees). For complete program information, view the [UC Slip-Resistant Footwear Program Document](#). For assistance, contact EHS at 949-824-6200 or email safety@uci.edu.

5.7 Hearing Protection

Exposure to high levels of noise may result in hearing loss. PPE should be worn when the noise level is 85 decibels or greater averaged over an 8-hour period of time. Popular types of hearing protection devices include earmuffs and foam earplugs contact the EHS Industrial Hygiene Division at (949) 824-6200 for assistance to evaluate noise levels.

5.8 Respiratory Protection

Respirators are used to prevent the exposure to air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors. All respirator usage, which includes disposable respirators, air purifying respirators, and air supplied respirators, require medical clearance, annual fit testing and training prior to use. For complete program information, visit <https://www.ehs.uci.edu/ih/respiratory-protection.php> or contact the EHS Industrial Hygiene Division at (949) 824-6200.

6. Reporting Requirements

In the event of an incident when PPE is damaged or contaminated, or a potential exposure occurs, this will need to be reported to EHS <https://www.ehs.uci.edu/forms/report-injury/index.php> to ensure the employee receives proper medical treatment.

7. References

State Regulations:

8 CCR 3203 Injury Illness Prevention Program: <http://www.dir.ca.gov/title8/3203.html>

8 CCR 3380 Personal Protective Devices: <http://www.dir.ca.gov/title8/3380.html>

8 CCR 3381 Head Protection: <http://www.dir.ca.gov/title8/3381.html>

8 CCR 3382 Eye and Face Protection: <http://www.dir.ca.gov/title8/3382.html> 8 CCR 3383

Body Protection: <http://www.dir.ca.gov/title8/3383.html>

8 CCR 3384 Hand Protection: <http://www.dir.ca.gov/title8/3384.html>

8 CCR 3385 Foot Protection: <http://www.dir.ca.gov/title8/3385.html>

8 CCR 5098 Hearing Protection: <http://www.dir.ca.gov/title8/5098.html>

8 CCR 5144 Respiratory Protective Equipment: <http://www.dir.ca.gov/title8/5144.html>

8 CCR 5191 Occupational Exposure to Hazardous Chemicals in Laboratories:

<http://www.dir.ca.gov/title8/5191.html>

8 CCR 5193 Bloodborne Pathogens: <https://www.dir.ca.gov/title8/5193.html>

8 CCR 5194 Hazard Communication: <https://www.dir.ca.gov/title8/5194.html>

8 CCR 5200 –5220 Regulated Carcinogens: <http://www.dir.ca.gov/title8/sb7g16a110.html>

10 CFR 19 Notices, Instructions, and Reports to Workers: Inspections and Investigations:

<https://www.ecfr.gov/current/title-10/chapter-I/part-19>

10 CFR 20 Standards for Protection against Radiation: <http://www.nrc.gov/reading-rm/doc-collections/cfr/part020/>

California Labor Code Section 6400-6413.5:

<https://www.oshaction.org/OSHPortal/pdf/LC%206401.pdf>

Prudent Practices in the Laboratory, National Research Council, 2011:

http://www.nap.edu/openbook.php?record_id=12654&page=1

Biosafety in Microbiological and Biomedical Laboratories (BMBL) 5th Edition (December 2009):

<http://www.cdc.gov/biosafety/publications/bmbl5/>

Other resources:

UCOP:

PPE Policy: <http://policy.ucop.edu/doc/3500597/PersonalProtectiveEquip>

Slip-Resistant Shoe Program: https://www.ucop.edu/safety-and-loss-prevention/files/footwear/block_files/uc-slip-resistant-footwear-program-document.pdf

UC Irvine:

EHS Non-Research PPE Webpage: <https://www.ehs.uci.edu/safety/non-research-ppe.php>

Appendices:

[Appendix A Guideline to Selection of Personal Protective Equipment](#)

APPENDIX A

Guideline to Selection of Personal Protective Equipment

This document serves as a guideline for the use of Personal Protective Equipment (PPE) for particular operations. Specific tasks are indicated in the first column, hazards associated with those tasks should be checked off in the second column, and recommended PPE is indicated in the third column. Contact EHS for additional assistance with the selection of PPE and with any additional questions.

NOTE:

- All personal protective equipment must be approved (ANSI, NIOSH, etc.) for the work to be performed, properly fit each user, not be defective or damaged, be appropriate and properly maintained even if an employee provides his/her own protective equipment, and be used by trained employees.
- Each employee required to use PPE must know when PPE is necessary, what PPE is necessary, how to properly don, doff, adjust, and wear PPE, the limitations of the PPE, and the proper care, maintenance, useful life and disposal of the PPE.
- Contact EHS for assistance if necessary.

| ✓ | WORK TASK | IDENTIFY HAZARDS INVOLVED IN TASK | RECOMMENDED SELECTION OF PERSONAL PROTECTIVE EQUIPMENT |
|---|---|---|--|
| | Indicate specific work task | <input type="checkbox"/> Head <input type="checkbox"/> Eye/Face <input type="checkbox"/> Skin/Hand <input type="checkbox"/> Foot <input type="checkbox"/> Inhalation <input type="checkbox"/> Hearing <input type="checkbox"/> Overhead <input type="checkbox"/> Flying/Falling Objects <input type="checkbox"/> Puncture/Penetration <input type="checkbox"/> Electric Shock <input type="checkbox"/> Heat/Burn <input type="checkbox"/> Light/Radiation <input type="checkbox"/> Chemical (specify) | <input type="checkbox"/> Hardhat, Type <input type="checkbox"/> 1 (vertical impact) <input type="checkbox"/> 2 (vertical & side impact) <input type="checkbox"/> G (impact/low volt) <input type="checkbox"/> E (impact/high volt) <input type="checkbox"/> C (impact) <input type="checkbox"/> Safety glasses/side shields <input type="checkbox"/> Goggles: <input type="checkbox"/> Impact <input type="checkbox"/> Chemical splash <input type="checkbox"/> Vented/Unvented <input type="checkbox"/> Laser eyewear (specify λ, OD) <input type="checkbox"/> Face shield <input type="checkbox"/> Plastic <input type="checkbox"/> Wire Screen <input type="checkbox"/> Gloves <input type="checkbox"/> Cut <input type="checkbox"/> Heat <input type="checkbox"/> Electrical <input type="checkbox"/> Chemical resistant (specify) <input type="checkbox"/> Cryogenic <input type="checkbox"/> Waterproof <input type="checkbox"/> Hand <input type="checkbox"/> Gauntlet <input type="checkbox"/> Mid Arm <input type="checkbox"/> Elbow <input type="checkbox"/> Shoulder <input type="checkbox"/> Safety shoes <input type="checkbox"/> Steel Toe <input type="checkbox"/> Composite Toe <input type="checkbox"/> Electric <input type="checkbox"/> Static <input type="checkbox"/> Respirator (specify) <input type="checkbox"/> Ear plugs/muffs <input type="checkbox"/> Garments/Other (specify) |
| | Work around high noise equipment, such as woodworking, grinding, pneumatic tools | <input type="checkbox"/> Hearing <input type="checkbox"/> Flying Objects | <input type="checkbox"/> Ear plugs/muffs <input type="checkbox"/> Safety glasses/side shields |
| | Grinding, chipping, drilling, chopping, breaking, hammering, sawing, sanding, using powder actuated tools, using a power press, glassware that may break, operations where an explosion or overpressure may occur | <input type="checkbox"/> Flying Objects | <input type="checkbox"/> Safety glasses/side shields <input type="checkbox"/> Respiratory Protection |
| | Working under overhead work where tools or work material may fall or where equipment or material movement may strike a person's head. | <input type="checkbox"/> Falling Objects | <input type="checkbox"/> Hardhat, Type <input type="checkbox"/> 1 (vertical impact) <input type="checkbox"/> 2 (vertical & side impact) <input type="checkbox"/> G (impact/low volt) <input type="checkbox"/> E (impact/high volt) <input type="checkbox"/> C (impact) <input type="checkbox"/> Steel-toed safety shoes |
| | Woodworking, metalworking, grinding, welding, handling trash or debris that may contain sharp objects, work with a sharp blade | <input type="checkbox"/> Puncture/Penetration | <input type="checkbox"/> Gloves – Cut/puncture resistant, e.g., Leather, Kevlar |

| | | | |
|--|---|---|---|
| | Work with live, exposed circuitry above 50V | <input type="checkbox"/> Electric Shock | <input type="checkbox"/> Hardhat, Type <input type="checkbox"/> E (impact/high volt) – for 600V or more <input type="checkbox"/> Gloves <input type="checkbox"/> Electrical, insulating – Use appropriate class for voltage <input type="checkbox"/> Safety shoes, insulating <input type="checkbox"/> Garments/Other – insulating sleeve, blankets and mats |
| | Work with extremely hot or cold materials or surfaces such as pipes, crucibles, glass, metal | <input type="checkbox"/> Burn, contact with hot or freezing surfaces | <input type="checkbox"/> Gloves <input type="checkbox"/> Heat – Leather, aluminized, Kevlar, Zetex, Cryogenic, or other temperature resistant material. Note: Always verify that manufacturer’s specifications are suitable for the task. |
| | Work with molten materials | <input type="checkbox"/> Burn | <input type="checkbox"/> Safety glasses/side shields <input type="checkbox"/> Face shield <input type="checkbox"/> Gloves <input type="checkbox"/> Heat – Leather, aluminized, Kevlar, Zetex or other heat resistant material. Always verify that manufacturer’s specifications are suitable for the task. <input type="checkbox"/> Safety shoes – where molten material may spill on the foot <input type="checkbox"/> Garments/Other – Rubber apron |
| | Welding, laser operations | <input type="checkbox"/> Light/Radiation <input type="checkbox"/> Ultraviolet and Infrared Radiation <input type="checkbox"/> Metal fume/Welding gases <input type="checkbox"/> Electric Current <input type="checkbox"/> Hot Metal <input type="checkbox"/> Noise | <input type="checkbox"/> Welder’s goggles or helmet. Be sure to use the appropriate optical density for the welding being done. <input type="checkbox"/> Protective Clothing - Leather <input type="checkbox"/> Laser eyewear – use the appropriate type for the wavelength and the necessary optical density. Ensure that the eyewear manufacturer’s specifications are suitable for the task. Contact EH&S for assistance. |
| | Hazardous material handling, chemical/hazardous material mixing, chemical laboratory operations, bonding, plating, chemical cleaning, applying adhesives, resins, or epoxies, spray coating, maintenance work in hazardous material use areas | <input type="checkbox"/> Chemical overexposure | <input type="checkbox"/> Safety glasses/side shields <input type="checkbox"/> Gloves <input type="checkbox"/> Chemical resistant – Verify that the glove manufacturer’s specifications are suitable for the material and the task. <input type="checkbox"/> Respirator – Contact EH&S for assistance. |
| | Hazardous material handling, chemical/hazardous material mixing, chemical laboratory operations, bonding, plating, chemical cleaning, applying adhesives, resins, or epoxies, spray coating, maintenance work in hazardous material use areas | <input type="checkbox"/> Chemical splash/contact | <input type="checkbox"/> Goggles: <input type="checkbox"/> Chemical splash type <input type="checkbox"/> Face shield – If a significant facial skin hazard is present (e.g. a corrosive or hot substance), use a face shield over chemical goggles <input type="checkbox"/> Gloves <input type="checkbox"/> Chemical resistant – Verify that the glove manufacturer’s specifications are suitable for the material and the task. <input type="checkbox"/> Closed-toed shoes <input type="checkbox"/> Respirator – Contact EH&S for assistance. <input type="checkbox"/> Garments/Other – A lab coat where incidental contact is possible or a rubber or neoprene lab apron if a hazardous chemical splash may occur. |

| | | |
|---|---|--|
| Acid cleaning | <input type="checkbox"/> Eye/Face <input type="checkbox"/> Skin/Hand <input type="checkbox"/> Chemical Mineral acids, acid pastes Remarks: Be especially cautious with products containing hydrofluoric acid (HF). Consult the EHS Procedure for Hydrofluoric Acid Safety and the MSDS. | <input type="checkbox"/> Chemical Splash Goggles <input type="checkbox"/> Face shield <input checked="" type="checkbox"/> Chemical Resistant Gloves Remarks: Use a Glove Guide (Appendix J) for chemical resistant gloves. Verify that the glove manufacturer's specifications are suitable for the material and the task. Where ventilation is not sufficient, contact EH&S. If a respirator is needed, contact EH&S for assistance. Respiratory use requires medical monitoring, training, and fit testing. |
| Bonding | <input type="checkbox"/> Chemical - Epoxy adhesives | <input type="checkbox"/> Gloves Remarks: Use a Glove Guide (Appendix J) for chemical resistant gloves. Verify that the glove manufacturer's specifications are suitable for the material and the task. |
| Laboratory chemical manipulation, Various chemical reagents | <input type="checkbox"/> Eye/Face <input type="checkbox"/> Skin/Hand <input type="checkbox"/> Chemical | <input type="checkbox"/> Safety glasses/side shields <input type="checkbox"/> Chemical Splash Goggles <input type="checkbox"/> Face shield <input type="checkbox"/> Chemical Resistant Gloves - See remarks below Remarks: Use a Glove Guide (Appendix J) for chemical resistant gloves. Verify that the glove manufacturer's specifications are suitable for the material and the task. Use chemical splash goggles and face shield where there is a possibility of a chemical splash, e.g. pouring liquid corrosives. Where ventilation is not sufficient, contact EH&S for assistance. If a respirator is needed, contact EH&S for assistance. Respiratory use requires medical monitoring, training, and fit testing. |
| Chemical cleaning | <input type="checkbox"/> Head <input type="checkbox"/> Eye/Face <input type="checkbox"/> Skin/Hand <input type="checkbox"/> Inhalation <input type="checkbox"/> Chemical – Organic solvents, e.g. acetone, isopropyl alcohol, methanol, methyl ethyl ketone; Acids, e.g. nitric acid, hydrochloric acid, hydrofluoric acid Remarks: Refer to MSDSs | <input type="checkbox"/> Safety glasses/side shields <input type="checkbox"/> Chemical Splash Goggles – if cleaning with large quantities where a chemical splash hazard is present <input type="checkbox"/> Face shield – if cleaning with corrosives where a severe splash hazard is present <input type="checkbox"/> Chemical Resistant Gloves –Use a Glove Guide (Appendix J) for chemical resistant gloves. Verify that the glove manufacturer's specifications are suitable for the material and the task. <input type="checkbox"/> Respirator – Contact EH&S for assistance. <input type="checkbox"/> Garments/Other – Use a lab coat, or use rubber or neoprene apron if a significant splash hazard is present. Remarks: Respirators and protective clothing are generally not required but may be necessary if large volumes of solvents or acids are used. Contact EH&S for assistance. |
| Laser/Ultraviolet Light Operations | <input type="checkbox"/> Electric Shock <input type="checkbox"/> Heat/Burn <input type="checkbox"/> Light/Radiation (UV Light) <input type="checkbox"/> Chemical - Refer to MSDSs if chemical dyes are used | <input type="checkbox"/> Laser eyewear (specify λ , OD) <input type="checkbox"/> Chemical resistant gloves – Refer to MSDS for laser dye, if necessary. Remarks: Use laser eyewear appropriate for laser and consistent with laser training. |

| | | |
|------------------------|---|--|
| Mechanical assembly | Remarks: No general PPE-related hazards noted | Remarks: None |
| Metalworking/machining | <input type="checkbox"/> Eye/Face <input type="checkbox"/> Skin/Hand <input type="checkbox"/> Foot <input type="checkbox"/> Flying Objects <input type="checkbox"/> Puncture <input type="checkbox"/> Chemical – Metalworking fluids Remarks: Metalworking fluid hazards include cancer, breathing and skin problems. Refer to the MSDSs. | <input type="checkbox"/> Safety glasses/side shields <input type="checkbox"/> Gloves <input type="checkbox"/> Cut <input type="checkbox"/> Chemical resistant - See Remarks below <input type="checkbox"/> Safety shoes <input type="checkbox"/> Garments/Other – long sleeve shirts Remarks: Remove contaminated clothing immediately. Use Nitrile or PVC gloves when fluid contact is unavoidable. |
| Paint spraying | <input type="checkbox"/> Skin/Hand <input type="checkbox"/> Inhalation <input type="checkbox"/> Chemical – Solvents, pigments Remarks: Refer the MSDSs. Some paints have special hazards and require special PPE. | <input type="checkbox"/> Gloves <input type="checkbox"/> Chemical resistant <input type="checkbox"/> Respirator - Contact EH&S for assistance. <input type="checkbox"/> Garments/Other Remarks: The type of chemical resistant glove may vary depending on the coating. Verify that the glove manufacturer's specifications are suitable for the material and the task. Refer to the MSDS. If a respirator is needed, contact EH&S for assistance. Respirator use requires medical monitoring, training, and fit testing. |
| Plating | <input type="checkbox"/> Eye/Face <input type="checkbox"/> Skin/Hand <input type="checkbox"/> Chemical – Corrosives, oxidizers, toxics Remarks: Refer to the MSDSs | <input type="checkbox"/> Safety glasses/side shields – Minimum for all personnel in work area <input type="checkbox"/> Chemical splash goggles – When pouring corrosives/irritants <input type="checkbox"/> Face shield - When pouring corrosives/irritants <input type="checkbox"/> Gloves <input type="checkbox"/> Chemical resistant – For acid/base: Rubber, PVC, Solvex, Silver Shield or as recommended on MSDS. Only heavy neoprene for concentrated nitric acid. Always replace contaminated gloves promptly. Verify that the glove manufacturer's specifications are suitable for the material and the task. <input type="checkbox"/> Closed-toed safety shoes <input type="checkbox"/> Garments/Other |
| Soldering | <input type="checkbox"/> Eye/Face | <input type="checkbox"/> Safety glasses/side shields |
| Welding | <input type="checkbox"/> Eye/Face <input type="checkbox"/> Skin/Hand <input type="checkbox"/> Foot <input type="checkbox"/> Inhalation <input type="checkbox"/> Flying/Falling Objects <input type="checkbox"/> Puncture/Penetration <input type="checkbox"/> Electric Shock <input type="checkbox"/> Heat/Burn <input type="checkbox"/> Light/Radiation <input type="checkbox"/> Chemical – Heavy metals, fluorides Remarks: Inhalation hazards may be present if adequate ventilation cannot be provided. | <input type="checkbox"/> Welder's goggles or helmet. Be sure to use the appropriate optical density for the welding being done. Contact EH&S for assistance, if necessary. <input type="checkbox"/> Welder's leather gloves with gauntlets <input type="checkbox"/> Safety shoes <input type="checkbox"/> Respirator – if adequate ventilation cannot be provided, e.g. in a confined space. Contact EH&S for assistance. <input type="checkbox"/> Garments/Other – Welder's jacket |

| | | | |
|--|---|---|---|
| | Woodworking | <input type="checkbox"/> Eye/Face <input type="checkbox"/> Skin/Hand <input type="checkbox"/> Foot <input type="checkbox"/> Inhalation <input type="checkbox"/> Flying/Falling Objects <input type="checkbox"/> Puncture/Penetration <input type="checkbox"/> Chemical- wood dust, adhesives, paints, thinners, stains Remarks: Inhalation hazards may exist if adequate ventilation cannot be provided. | <input type="checkbox"/> Safety glasses/side shields <input type="checkbox"/> Gloves <input type="checkbox"/> Cut <input type="checkbox"/> Chemical resistant – Use chemical resistant gloves if skin contact from adhesives, paints, thinners, and stains may occur. Always replace contaminated gloves promptly. Verify that the glove manufacturer's specifications are suitable for the material and the task. <input type="checkbox"/> Safety shoes <input type="checkbox"/> Respirator- Contact EH&S for assistance. |
| | Vehicle Service (includes) Tune-up Transmission Service Oil Change Differential Service Air Conditioning Service Change Belts | <input type="checkbox"/> Eye/Face <input type="checkbox"/> Skin/Hand <input type="checkbox"/> Foot <input type="checkbox"/> Hearing <input type="checkbox"/> Heat/Burn <input type="checkbox"/> Overhead <input type="checkbox"/> Chemical (e.g. Engine solvents, Ethylene Glycol) Remarks: Prolonged contact with engine oils, lubricants and grease may cause irritation. Engine oil and exhaust system parts are hot at operating temperatures and may be a burn hazard if the engine is not allowed to cool. The use of air driven tools can cause flying particles and noise. | <input type="checkbox"/> Safety glasses/side shields <input type="checkbox"/> Ear Plugs/Muffs <input type="checkbox"/> Gloves <input type="checkbox"/> Chemical resistant <input type="checkbox"/> Safety shoes <input type="checkbox"/> Garments/Other: Apron Remarks: Use of compressed air or air driven tools require eye protection and hearing protection. Special conditions may require additional protection such as an apron, or working overhead, the use of a bump cap. |
| | Tire Service (includes) Change Balancing Rotation | <input type="checkbox"/> Eye/Face <input type="checkbox"/> Skin/Hand <input type="checkbox"/> Foot <input type="checkbox"/> Flying/Falling Objects <input type="checkbox"/> Chemical - lead weights in tire balancing Remarks: Lead residues, dirt and grime from handling tires may be toxic if ingested due to poor hygiene practices. Air driven tools can cause flying particles and noise. | <input type="checkbox"/> Safety glasses/side shields <input type="checkbox"/> Ear plugs/Muffs <input type="checkbox"/> Gloves <input type="checkbox"/> Chemical resistant <input type="checkbox"/> Safety shoes <input type="checkbox"/> Garments/Other: Apron Remarks: N-Dex or latex gloves protect hands from contact with tire and lead residues. Aprons would protect garments from tire and wheel grime, etc. |
| | Brake Service (includes) Removal of worn brakes Installation of new brakes Turning drums | <input type="checkbox"/> Eye/Face <input type="checkbox"/> Skin/Hand <input type="checkbox"/> Foot <input type="checkbox"/> Inhalation <input type="checkbox"/> Flying/Falling Objects <input type="checkbox"/> Puncture/Penetration <input type="checkbox"/> Chemical Remarks: Turning drums requires use of lathe that involves cutting tool, potential generation of particulate. Brake fluids can be irritating and the use of air driven tools can generate flying particles and noise. | <input type="checkbox"/> Safety glasses/side shields <input type="checkbox"/> Ear plugs/Muffs <input type="checkbox"/> Gloves <input type="checkbox"/> Chemical resistant <input type="checkbox"/> Safety shoes Remarks: N-Dex or latex protect against brake fluid contact and wheel cleaning solutions. Safety glasses with side shields protect against particles during the use of air driven tools and ear plugs/muffs protect against associated noise. |

| | | | |
|--|----------------------------|---|---|
| | <p>Battery Maintenance</p> | <p> <input type="checkbox"/> Eye/Face <input type="checkbox"/> Skin/Hand <input type="checkbox"/> Foot <input type="checkbox"/> Flying/Falling Objects <input type="checkbox"/> Electric Shock <input type="checkbox"/> Heat Burn <input type="checkbox"/> Chemical </p> <p>Remarks: Splash of battery acid, electrical hazard during work or charging of battery.</p> | <p> <input type="checkbox"/> Safety glasses/side shields <input type="checkbox"/> Face shield (added over safety glasses) <input type="checkbox"/> Gloves <input type="checkbox"/> Chemical resistant <input type="checkbox"/> Safety shoes <input type="checkbox"/> Apron </p> |
|--|----------------------------|---|---|