CALIFORNIA STATE UNIVERSITY
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Personal Protective Equipment Plan

A subsection to the University Injury & Illness Prevention Plan
Per California Code of Regulations Title 8 §3380- §3385

CALIFORNIA STATE UNIVERSITY, STANISLAUS
Personal Protective Equipment Plan

PLAN REVIEW

This sheet should be completed each time the Personal Protective Equipment (PPE) Plan is reviewed and/or modified. The Director for Safety & Risk Management is responsible to review and update this plan annually or more frequently as needed per California Code of Regulations Title 8 §3380-§3385 and CSU Chancellor's Executive Order 1039.

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Table of Contents

1.0 Regulatory Authority

California Code of Regulations, Title 8, Section 3380 through Section 3385; CSU Occupational Health & Safety Policy (Executive Order 1039)

2.0 Administering Agency

California Division of Occupational Safety and Health, Department of Industrial relations (Cal/OSHA)

3.0 Background

The purpose of this plan is to establish uniform requirements when personal protective equipment is required; and to ensure personal protective equipment is provided, used, and maintained in a reliable condition.

4.0 Scope

The requirements of this document apply to all faculty, staff, students, and volunteers when working in conditions requiring personal protective equipment. This program addresses eye, face, head, body, foot, and hand protection requirements. Separate programs exist for respiratory and hearing protection. Employees working with energized electrical equipment are covered specifically under the University's Energized Electrical Work Program and are exempted from this plan for those related exposures.

5.0 Objectives

The objective of the Personal Protective Equipment (PPE) Plan is to protect employees from the risk of injury by creating a barrier against workplace hazards. PPE is not a substitute for good engineering, administrative procedures or work practices, but should be used in conjunction with these controls to ensure the health and safety of the University's faculty, staff, students, and volunteers.

6.0 Policy

It is the policy of California State University Stanislaus, to maintain, insofar as it is reasonably within the control of the University to do so, a campus environment for students, faculty, staff and volunteers that will not adversely affect their health and safety nor subject them to avoidable risks of accidental injury. No individual or employee shall be required to perform any task, which is determined to be unsafe or unreasonably hazardous. Furthermore, the University shall ensure that all operational activities are carried out in compliance with existing environmental laws, rules, regulations, and campus policies, in order to protect the environment.

7.0 Definitions

Airborne contaminants - A harmful, irritating, or nuisance material, in the form of gas, dust/particulate, mist, or fumes, that is foreign to the normal atmosphere.

Clothing - Refers to whatever may be worn by the employee as protection for any body part.

Combination of hazards - A workplace situation where more than one hazard is present concurrently, such as exposure to non-ionizing radiation, toxic gasses and flying hot particles when welding.

Excessive heat/flame - Working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personal protective equipment worn by employees.

Excessive sound - Exposure to an 8-hour time weighted average (TWA) noise level of 85 dBA or greater as measured on A scale of a sound level meter. Impulsive or impact noise should not exceed 140 dB peak sound pressure level.

Flying chips - Exposure to particulate material ejected by mechanical processes (e.g., wood sawing, metal grinding, paint spraying) or wind-blown dust.

Harmful light - Any exposure to high energy laser light or other high intensity natural or artificial light that may cause damage to eye structures. Moderate and high-power lasers are potentially hazardous because they can burn the retina of the eye, or even the skin.

Harmful radiation - The level or dose of ionizing radiation or non-ionizing radiation that may cause biological damage if exposed. The ionizing radiation category primarily includes alpha, beta, x-ray, and gamma radiation. Non-ionizing radiation includes, among others, ultraviolet (UV), infrared (IR), radio frequency (RF), and microwave radiation. The difference between the two is that ionizing radiation has enough energy to eject orbital electrons from the atoms of the material being irradiated.

Hazardous materials - Any material which poses a health and safety threat to employees and/or students or a threat to the environment as a result of improper handling, disposal methods or accidental discharge is considered hazardous.

Hazardous motion - Machinery or processes where any movement of tools, machine elements or particles exists, or movement of personnel that could result in collision with stationary objects.

Personal protective equipment - Any device or system of clothing and devices that protects the wearer from the obvious harmful substances, activities, conditions or environment at the workplace.

Respirator – A device designed to protect the wearer from the inhalation of harmful atmospheres.

Sharp objects - Any object used or encountered that can be reasonably anticipated to penetrate the skin or any other part of the body, and to result in an exposure incident, including, but not limited to, needle devices, scalpels, lancets, broken glass, broken capillary tubes, exposed ends of dental wires, knives, drills and burrs.

8.0 Responsibilities

8.1 Safety and Risk Management (S&RM)

a. Develop, implement, maintain, and update the PPE plan.

b. Work with departments to conduct hazard assessments of work tasks and determine when PPE is necessary. Document/certify the hazard assessment.
c. Advise and assist departments in the implementation of PPE policies and practices.
d. Assist departments in selection of proper PPE.
e. Assist departments in identifying hazardous operations or materials, establishing safe work practices, and selecting protective equipment and other exposure controls.
f. Maintaining records of hazard assessments.
g. Assist departments with PPE use, fitting and maintenance.
h. Conduct training as needed.

8.2 Deans, Directors, Department Chairs, and Coordinators

a. Responsible for the PPE plan within college or department.
b. Ensure that requirements related to the PPE plan, as contained in this document, are adequately supported at the college or departmental level.
c. Departments affected by this plan include, but are not limited to:
    - **Facilities Services** - Maintenance activities throughout campus buildings and grounds
    - **Information Technology** - Telecommunications and network installation and maintenance throughout the University
    - **Student Housing** - Maintenance activities throughout campus housing facilities and grounds
    - **Theater** - Construction and striking of stage productions
    - **Art** - Handling hazardous materials, creating and constructing art pieces
    - **Physics, Biology, Chemistry and Research Labs** – Handling hazardous materials
    - **Athletics** – Contact and other sports.

8.3 Managers, Supervisors, and Principal Investigators

a. Work with S&RM to conduct hazard assessments of work tasks pertaining to their areas.
b. Work with S&RM on selection of proper PPE based upon the hazards identified in the hazard assessment. Communicate selection decisions to each affected employee in the department.
c. Provide appropriate PPE and make it available to employees.
d. Ensure employees wear required PPE and maintain the PPE in a safe and sanitary condition.
e. Ensure employees are properly trained in the care, maintenance, and use of the PPE prior to performing tasks requiring the use of PPE.
f. Conduct training and work with S&RM to conduct training as needed.
g. Ensure PPE not issued to individual employee is properly serviced, maintained, and cleaned prior to issuing it for temporary or situational usage.
h. Designate additional PPE when necessary.
i. Ensuring that defective or damaged equipment is immediately replaced
j. Provide appropriate storage area.
k. Maintain appropriate records.
l. Notifying S&RM when new hazards are introduced or when processes are added or changed.

8.4 Department Safety Coordinators (DSCs), Shop, Lab, and Maintenance Coordinators

a. Serve as a liaison with S&RM to implement the PPE Plan.
b. Assist area supervisors in all aspects of this plan.

c. Monitor the procurement, use, maintenance and replacement of PPE in the areas over which they have oversight responsibility.
d. Understand and act in accordance with the safety requirements established by the department.
e. Participate in all required training programs.
f. Understand the function and proper use of all PPE.
g. Wear and properly maintain the PPE necessary to perform each task.
h. Use engineering controls and safety equipment properly and according to department requirements.
i. Report to supervisor all facts pertaining to accidents that result in injury and any action or condition that may result in an accident.

8.5 Employees, Students and Volunteers

Each person working in a hazardous environment, having been trained, is responsible for remaining aware of the hazards associated with their activities and the materials being handled. Any employee who fails to wear PPE, when required, may face disciplinary action.

a. Wear appropriate PPE when required.
b. Attending required training sessions and complying with all applicable safety requirements.
c. Use and/or wear PPE in accordance with the manufacturer's instructions or provided training.
d. Inspect all PPE for defects and damages prior to usage. Replace PPE that is no longer in good operating condition.
e. Maintain and store all PPE issued in a safe and sanitary condition.
f. Consult with S&RM or their manager/supervisor prior to using any personally owned PPE to ensure the PPE does not create additional hazards, is appropriate for the tasks involved, and meet applicable standards for design and safety.
g. Contact their supervisor/manager if they are unclear on a procedure.
h. Communicate to their supervisor/manager of any hazards requiring additional PPE.

9.0 Compliance Guidelines

The requirement to use PPE is a function of the type of work (activities), the duration of the exposure and the degree of physical contact (action level to implement controls) with the potential injury/illness source. However, each job at the University has varying degrees of exposure to injury ranging from miniscule to severe. S&RM has a number of Environmental Health and Safety Programs to identify those injury sources and to mitigate employee accidental injuries. Because the purchase, training, use and enforcement of personal protective equipment is implemented across a cross-section of departments at Stanislaus State, the most expedient way for a supervisor to assess the need for PPE is to examine the existing health & safety programs.

For example, the specific "Hearing Conservation Program," to evaluate potential injury to hearing by loud sustained noise, was established to identify the activities where loud noise may exist and to determine if the sound exceeds minimum standards as published by the government. Appropriate hearing PPE can be found in this program.

Several other programs where PPE, to some extent, is specified include:

- Asbestos Management
- Exposure Control Plan: Bloodborne Pathogens
- Chemical Hygiene Plan
- Hazardous Materials Management Program
- Laser Safety Program
- Respiratory Protection Program

Supervisors, responsible for the on-the-job health and safety of the employee, should look first to the specific program/plan that details the PPE required. If the hazardous job is occasional or does not fit into a specific program, S&RM can assist with PPE selection and training as required to protect the employee.

10.0 Exposure and Protective Devices

10.1 Exposures

The condition of being unprotected from a possible injury source.

Ballistic Exposure - Exposures consist of flying or dropped materials that may strike and injure an employee on the job causing a blunt or penetrating trauma.

Biological Exposure - Exposures consist of any biological agent that may cause personal injury.

Blunt Trauma Exposure - Refers to a type of physical trauma caused to a body part by impact. Resulting injury may be concussions, abrasions, lacerations, and/or bone fracturing. Blunt trauma is contrasted with penetrating trauma, in which an object such as a hypodermic needle enters the body.

Chemical Exposure - Exposures consist of any chemical agent that may cause personal injury.

Confined Space Entry Exposure - Exposures consist of any confined workplace that may result in injury.

Extreme Temperatures - Working in very high or very low temperatures either localized or in the general environment can cause injuries.

Fall Exposure - Exposures consist of any work activity from elevated heights or ladders.

Fire Exposure - Exposures working around open flames or from fighting a fire.

Hazardous Materials - Exposure to any material which poses a health and safety threat to employees and/or as a result of improper handling or disposal methods or accidental discharge.

Penetrating Trauma Exposure - Exposures to puncture wounds while in a work environment.

Radiation Exposure - Exposures to harmful ionizing or non-ionizing radiation in which an employee may work.

Respiratory Exposure - Exposures to harmful contaminants in the air in which an employee may work.

Rolling Stock - Exposures to powered and non-powered rolling carts, dollies and pallet movers used to manually transport heavy materials and equipment.

Sharp Objects - Exposures to tools, equipment and materials with sharp points or edges.

10.2 Personal Protection Devices

Any clothing or equipment provided by the University that is designed and constructed to safeguard the wearer exposed to a specific physical hazard.

Body Protection Equipment - Used by employees exposed to potential injury to the body, trunk, limbs or torso. PPE may consist of special clothing.

Eye/Face Protection Equipment - Used by employees exposed to potential injury from harmful light or airborne particles in the work environment. PPE may consist of special safety glasses, goggles or facemasks.

Fall Protection Equipment - Used by employees exposed to potential by working at above ground levels of 6 feet or more. PPE may consist of Personal Fall Arresting Systems. Components of a personal fall arresting system, detailed in the Fall Protection Program, include a body harness, lanyard, lifeline, connector, and an anchorage point capable of supporting at least 5000 pounds

Foot Protection Equipment - Used by employees exposed to potential injury to the feet. PPE may consist of special shoes, boots or metatarsal guards.

Hand Protection Equipment - Used by employees exposed to potential injury to hands. PPE may consist of special gloves or hand creams.

Head Protection Equipment - Used by employees exposed to potential injury to the head. PPE may consist of hard hats, special helmets or bump caps.

Hearing Protection Equipment - Used by employees exposed to excessive levels of sound as specified in the University's Hearing Conservation Program. PPE may consist of special earplugs or earmuffs.

Radiation Protection Equipment - Used by employees exposed to potential injury as specified in the University's Radiation Safety Manual. PPE may consist of safety glasses, protective clothing and gloves.

Respiratory Protection Equipment - Used by employees exposed to potential injury to the lungs and associated breathing functions as specified in the University's Respiratory Protection Program. PPE may consist of Face Filtering Devices, respirators of single or multiple use and air supplied types.

Skin Protection Equipment - Used by employees exposed to potential injury (i.e., dermatitis) from chemical or others hazardous materials they may need to handle in the course of their work assignments. PPE may consist of gloves, special protective hand creams, sunscreen or clothing.

11.0 PPE Selection & Application

11.1 Overview

While personal protective equipment is an effective loss control tool in accident and injury prevention, these devices still do not reduce or eliminate the hazards. Thus, PPE is advised when it is not feasible to render the workplace environment adequately safe. It is not the University's intention to make PPE the sole protection but a supplement to effective environmental control coupled with safe work procedures and proper training.

Supervisors must take care when considering the appropriate PPE for a specific or combination of hazards. Selecting the correct PPE may mean choosing from a variety of types, materials, functions and design to achieve the most cost-effective protection without compromising safety.

Many PPE devices available require choices among several variables and priorities over and above cost. These choices are best made in consultation with the safety personnel in S&RM (209-667-3057).

11.2 Workplace Hazard Assessment and PPE Evaluation

a. Job Hazard Analysis/Job Safety Analysis
The Job Hazard Analysis / Job Safety Analysis (Appendix A) is used by S&RM to document that the area identified has undergone a workplace hazard assessment and verify that the use of PPE is appropriate for the hazards found. S&RM will assist the departments in conducting this assessment and maintaining records. Any suggestions for safety enhancement will be communicated to the proper department personnel. Department supervisors may download this form and conduct a self-evaluation whenever conditions in the department change.

b. Risk & Safety Solutions (RSS)
Selection and use of PPE in laboratories is conducted using the Assess module within RSS. This module establishes a baseline determination of what minimum PPE is appropriate for faculty, staff, students, or volunteers of Stanislaus State, who is engaged in a particular type of work. A comprehensive list of recommended PPEs, specific to the hazards the individual is likely to come in contact with may be generated through the online application.

Faculty may complete the online hazard assessment using the following instructions:

1. Access the RSS Assessment application at https://csu.risksafety.solutions (login credentials are the same as your SSO login). You will be prompted to create a new assessment at which time it will first ask you to set up your group and location(s). S&RM or the DSC can help with the setup of your group or locations currently not in the application.
2. Once the group has been set up and associated with a location, you will be prompted to complete and submit the hazard questionnaire. Upon submittal, the system will generate a list of hazards and recommended PPE for members in the lab and those working adjacently.
3. Group members will receive an email asking them to review and acknowledge the assessment, which includes the PPE recommendations. Once all lab members have acknowledged the assessment, the process is considered complete.

Employees should contact their DSCs if there are questions concerning the information in the hazard assessment. Refer to the Chemical Hygiene and Department Health and Safety Plans for additional information about use of PPE in laboratories.

11.3 PPE Specifications

a. Eye and Face Protection

Prevention of eye injuries requires that all persons who enter eye hazard areas wear protective eye wear. This includes employees, visitors, researchers, contractors or others passing through an identified eye hazard area. Supervisors should stock a sufficient quantity of safety goggles and glasses to provide eye protection for visitors. Eye hazard areas should be posted with signs.

1. Definition: Face and eye protection includes goggles, face shields, glasses with side shields.
2. Eye protection is required when working in locations or performing tasks where there is a risk of eye injuries from flying particles, hazardous substances, or injurious light rays.
3. Face and/or eye protection shall be worn by employees when engaged in, but not limited to, the following work situations:
   - During the presence of airborne dust, dirt, particles, or other debris, either driven by wind or propelled by machinery with such force that may cause injury
   - When working around power tools, lawn mowers, or other machinery which may generate flying particles
   - When working with grinding, cutting, or milling tools
   - When using impact wrenches and compressed air tools
   - When cutting or breaking concrete
   - When using power actuated tools
   - When cleaning dust, or dirt from under vehicles, machinery, etc.
   - When using or working in the immediate vicinity of those working with corrosive, reactive, or harmful chemicals
   - When handling or moving hazardous materials
   - When chipping, scraping, scaling paint, rust, or other materials
   - When working on any overhead surface or object which requires the employee to face upward
   - When operating a motor vehicle on the roadway or right of way without a windshield of the type approved by the Department of Highway Safety and Motor

Vehicles
- When operating an edger, chipper, and chain saws, a full plastic face shield shall be worn
- When welding or working in the immediate area of a welder, employees shall wear either a face shield with the appropriate filter lens, welder's lens, or welder's goggles. The welder is required to utilize a portable welding screen to protect the eyes of another employee working nearby
- When working in the vicinity of a welder, employees should wear tinted safety glasses if there is the possibility of an exposure
- In any other work situation(s) where the supervisor, due to the nature of the hazard(s), deems appropriate eye and/or face protection be worn

4. Exception to the above requirements: when working at a microscope or similar operation within the Eye Protection area, the supervisor may determine that the eye protection need not be worn.
5. Eye and face protection use shall provide suitable protection for the work environment and exposure and shall meet or exceed ANSI Z87.1-1989 standards.
6. Face shield alone does not provide adequate protection against impact and must be used in conjunction with safety glasses or goggles.
7. Where exposed to radiant energy or for welding operation, filter lens shall be used. Tinted or shaded lens which are not rated, such as those used in sunglasses, do not provide sufficient protection and cannot be used in lieu of filter lens. Shade of filter lens selected shall be in accordance with Table 1 listed below. Shades denser than those listed may be used.

Table 1: Filter Lens Shade Numbers for Protection against Radiant Energy

Welding Operation	Shade Number
Torch brazing	3 or 4
Light cutting, up to 1 inch	3 or 4
Medium cutting, 1 to 6 inches	4 or 5
Heavy cutting, over 6 inches	5 or 6
Gas welding (light), up to 1/8 inch	4 or 5
Gas welding (medium), 1/8-1/2 inch	5 or 6
Gas welding (heavy), over ½ inch	6 or 8

8. Laser safety goggles shall provide protection for the specific wavelength of the laser and be of optical density adequate for the energy involved.
9. Contact lenses may not be worn in chemical handling, storage, or use area.
10. Where eye protection is required and the employee requires corrective vision, prescription safety glasses, safety glasses designed to fit over eyeglasses (over the glass safety glasses), or corrective lenses mounted behind protective lenses will be provided. Prescription safety glasses shall have permanent side shields.
11. Side shield protection shall be used whenever there is a hazard of flying objects from an angle.
12. Following are descriptions of the most common types of eye and face protection and the types of hazards they can guard against.
    - **Safety Glasses** - Protective eyeglasses are made with safety frames, tempered glass or plastic lenses. Covered temples and side shields provide eye protection from

moderate impact and flying particles. Side protectors must be used when there is a hazard from flying objects.

- **Goggles** - Vinyl framed goggles are available with directly, indirectly or non-vented frames. Indirectly vented goggles should be used when there is a hazard from chemical splash. Non-vented frames should be used to protect from hazardous gases and vapors. Goggles may be worn in combination with corrective lenses to insure protection along with proper vision.
- **Face Shields** - Face shields are available in various sizes, tensile strength, impact and heat resistance and light ray filtering capacity. Face shields should be used in operations when the entire face needs protection and should be worn to protect the skin, mouth and nose. Face shields cannot be used as a substitute for safety glasses or goggles.
- **Welders/Chippers Goggles** - Welders goggles provide protection from sparking, scaling or splashing metals and harmful light rays. Lenses are impact resistant and are available in graduated shades of filtration. Chippers/Grinders goggles provide eye protection from flying particles. Refer to 8 CCR §3382, Table EP-1 for guidance in selecting protection against radiant energy.
- **Welding Shields** - Use welding face shields to protect workers' eyes and face from infrared or radiant light burns, flying sparks, metal spatter and slag chips encountered during welding, brazing, soldering, resistance welding, bare or shielded electric arc welding and oxyacetylene welding and cutting operations.
- **Laser Protection** - Laser safety goggles must be specific to the wavelength of the laser and be of optical density adequate for the energy involved. All protective goggles shall be labeled with the wavelength and optical density for intended use and the visible light transmission. Refer to 8 CCR §3882, Table EP-2 for laser safety glass selection guidelines.

b. Head Protection

Head protection will be furnished to, and used by, all employees engaged in construction and other miscellaneous work. Head protection must also be worn by engineers, inspectors and visitors at sites where hazards from falling or fixed objects or electrical shock are present. Where there is a risk of injury from hair entanglement in moving parts of machinery or contamination from combustible or toxic materials, employees shall confine their hair to eliminate the hazard.

1. Head protection will be worn when working in areas where there is a risk of head injuries from flying or falling objects and/or electrical shock or burn. The shell of the protective hat is hard enough to resist the blow and the headband and crown straps keep the shell away from the wearer's skull. Bump caps/skull guards can be issued and worn for protection against scalp lacerations from contact with sharp objects. However, bump caps cannot be worn as substitutes for safety hats because they do not afford protection from high impact forces or penetration by falling objects.
2. Where head protection is required, the appropriate class of ANSI designated protective helmets (hard hats) shall be used. The hard hats shall meet ANSI Z89.1-1986, Class A or B Protective Headwear for Industrial Workers or ANSI Z89.2 for electrical work above 600 volts.
    - When there is a risk of head injury from contact with electrical conductors, the hard hats shall be appropriately rated for the voltage exposed (Class E or G for conductors less than 600 volts and Class E for conductors greater than 600 volts).

- Where there is no risk of head injury from contact with electrical conductors, the hard hats need only be rated for impact and penetration protection.

3. Following is a description of the different types of protective hats.
   - **Type 1** - Helmet with a full brim.
   - **Type 2** - Brimless helmet with a peak extending forward from the crown.
   - **Class A** - Reduces force from impact from falling objects and danger of contact with low voltage conductors.
   - **Class B** - Reduces force from impact from falling objects and danger of contact with high voltage conductors.

c. Foot Protection

Footwear that meets established safety standards will have an American National Standards Institute (ANSI) label inside each shoe. There are many types and styles of protective footwear and it is possible that a particular job may require special protection. Footwear which is inappropriate to the extent that its ordinary use creates the possibility of foot injuries shall not be worn.

1. Foot protection is required when there are potential foot injuries from exposure to electrical hazards, corrosive, hot substances, falling objects, crushing or penetrating actions, or when working in abnormally wet conditions and areas where slipping can occur.
2. Appropriate foot protection shall be worn when working in, but not limited to, the following situations:
   - When working in construction areas or where there is exposure to abrasive, sharp, or piercing objects or where employee may step on objects which may puncture the foot
   - When operating heavy industrial equipment
   - When lifting heavy objects
   - Where necessary to protect employees from slipping on slick surfaces or where liquid (water, oil, chemicals, grease, etc.) have spilled, or are regularly present on the floor
   - Where traction or support is necessary such as working on inclined surfaces
   - Any other situation, where due to the nature of the hazards, the supervisor deems it necessary that foot protection will be worn
3. Protective footwear shall meet ANSI Z41-1991standards for impact and compression protection (safety toes), and shall be laced and have slip resistant soles.
4. Protective footwear with puncture protection is required where there are sharp objects such as nails, screws, scrap metal, etc. that could be stepped on.
5. When working with corrosives, caustics, cutting oils, or petroleum products, neoprene or nitrile boots are often required to prevent penetration.
6. Do not tuck pant legs into boots when working with chemicals or hot liquids, because it can funnel hazardous liquids into the boot.
7. All leather protective footwear is required when performing energized electrical work. Electrical hazard safety shoes are not designed to be a replacement for electrically rated matting in high voltage situations. Electrical safety shoes are to be used when working on low voltage circuits and as a secondary means of protection.

d. Hand Protection

1. Hand protection is required when there is potential hand injury from exposure to cuts, burns, harmful physical or chemical agents, or exposure to communicable diseases through contact with the skin.
2. Appropriate hand protection shall be worn when working in, but not limited to, the following situations:
   - Handling hot, heavy, sharp, jagged, or rough materials and objects such as when welding and handling lumber, concrete, or debris
   - Handling trash or waste
   - Handling corrosive, toxic, or harmful chemicals that may be absorbed through the skin
   - Working as emergency responders where contact with body fluids of victims is possible
   - Loading or stacking heavy objects, or where a proper grip is necessary to safely do the task
   - Working around live electrical voltage
   - Any other situation where due to the hazards present, the supervisor deems it necessary that hand protection be worn.
3. Gloves shall not be worn where there is danger of the gloves becoming entangled in moving machinery or materials.
4. Gloves must be selected based upon the environment or (potential) hazards for which they will be exposed. There may be multiple and simultaneous exposure to a variety of hazards. One type of glove will NOT work in all situations. Selection should be based upon protection against the highest level of hazards involved.
5. When selecting gloves for protection against chemical hazards, the chemical properties and breakthrough time shall be considered. Always read instructions and warnings on chemical container labels and safety data sheets before handling any chemical. Recommended glove types are often listed in the section for PPE.
6. Gloves must be replaced periodically, depending on frequency of use and permeability to the substance(s) handled. Contaminated gloves should be carefully removed after use to avoid skin contamination.
7. Power tools and machinery must have guards installed or incorporated into their design that prevent the hands from contacting the point of operation, power train, or other moving parts.

e. Body Protection

1. Protective clothing such as Tyvek suits, smocks, lab coats, or a long-sleeved shirt may be required when there is exposure to parts of the body not otherwise protected by other articles.
2. Body protection, such as aprons or chaps, may be required for employees whose work exposes parts of their body to hazardous substances, equipment or flying objects.
3. Clothing appropriate for the work being done must be worn. Loose sleeves, shirt tails, ties, lapels, cuffs, other loose clothing or unrestrained hair which can be entangled in moving machinery or materials should not be worn.

f. Hearing Protection (Refer to Hearing Conservation Program)

1. When employees are subjected to continuous noise levels exceeding those listed in the

table below, attempts should be made to use engineering and/or administrative controls to reduce the noise levels. (Example: An employee works in an area for eight continuous hours and the time weighted average of the noise level exceeds 90dbA). If the noise exposure level cannot be reduced within the levels set forth in the table, hearing protectors will be provided.

2. Employees will not be exposed to impulsive or impact noise in excess of 140dbA peak sound pressure without the appropriate hearing protection.
3. Hearing protection may consist of ear muffs, ear plugs, or disposable ear plugs. Any of these are acceptable as long as they do not inhibit the employees work activities and are appropriately rated to reduce the noise exposure.
4. The following table is taken from existing standards showing the maximum permissible continuous noise exposure for a stated period.

Table 2: Permissible Noise Exposure

Duration of Exposure, Hours	Sound Level dbA
8	90
6	92
4	95
3	97
2	100
1 ½	102
1	105
½	110
¼	115

g. Respiratory Protection (Refer to Respiratory Protection Program)

1. There are situations where employees may be exposed to dusts, fumes, gases, smokes, vapors, oxygen deficient atmosphere, etc., that are harmful to the respiratory system.
2. Where these hazards cannot be eliminated or reduced to a permissible level via engineering control, the department must ensure that appropriate personal protective equipment is provided to the employees prior to entering the area or performing the task.
3. The department manager and supervisor shall:
   - Be knowledgeable of potentially hazardous situations, i.e., confined spaces, enclosed work areas, fire scenes, and those circumstances which may indicate the presence of any other hazard.
   - Ensure that employees are trained in the proper use of respiratory protection, and ensure that the equipment is properly worn, maintained, and replaced as needed.
   - Ensure that approved protective breathing apparatus be conspicuously placed near the work environment or carried with the employee where there is the possibility of exposure to harmful atmospheres or toxic/airborne substances.
4. It is the responsibility of the employee to wear the approved respiratory protection when working in, but not limited to, the following situations:
   - When welding on brass, bronze, or galvanized iron in confined areas where ventilation is limited.
   - When entering manholes, sewers, vaults, or other confined spaces, where tests

indicate the presence of noxious, oxygen deficient, or toxic atmospheres, where purging and ventilation attempts have been unsuccessful.
- When handling pesticides, fertilizers, solvents or other toxic chemicals capable of causing damage to the human respiratory system.
- When working in environments where employees are subject to exposure to harmful dusts, mists, fumes, gases, smokes, or any otherwise contaminated atmosphere.
- Any other situation where, due to the nature of the hazards present, the supervisor deems it necessary that respiratory protection be used.

h. Personal Clothing

1. In addition to protective clothing and equipment which are manufactured to minimize occupational hazards, an added measure of protection can be accomplished through an employees' everyday dress.
2. In general, employees should:
   - Wear clothing which fits properly and would protect them from cuts, scratches, insect bites, and sunburn
   - Wear clothing suitable for the prevailing weather conditions
   - When working around machinery, avoid wearing loose clothing, long ties, loose cuffs, rings, overcoats, or any other clothing which may get entangled in the machinery
   - Wear approved flame-resistant clothing as specified for jobs involving exposure to electrically energized circuits, or open flames.

i. Emergency Eyewash/Shower Stations

1. Emergency Eyewash and Shower Facilities shall meet ANSI Z358.1 -1981 standards.
2. Emergency eyewash facilities must be provided in all areas where the eyes of an employee may be exposed to corrosive materials or substances which are toxic by absorption.
3. An emergency shower must be provided at all work areas where, during routine operations or foreseeable emergencies, areas of the body may come into contact with a substance which is corrosive or severely irritating to the skin or which is toxic by skin absorption.
4. If both an eyewash and shower are required, they shall be located so that both can be used at the same time by one person.
5. All such emergency facilities must be located within 10 seconds of foot travel by an injured person and be kept free of items which obstruct their use.
6. Plumbed eyewash and shower equipment shall be activated weekly for a minimum of three (3) minutes to flush the line and verify proper operation.
7. Stand-alone eyewash/shower stations shall be activated monthly for a minimum of five (5) minutes to flush the line and verify proper operation.

11.4 Selection Table

The following tables give the department person responsible for PPE a quick overview of the selections available. It is but the first step in the process of providing PPE for our employees.

Table 3: PPE by Job Classification

JOB TITLE	PPE SUGGESTED
Accompanist	Job specific
Accountant	Job specific
Accounting Technician	Job specific
Admin Analyst/Spclist	Job specific
Admin Support Assistant	Job specific
Admin Support Coordinator	Job specific
Administrator	Job specific
Air Cond/Refrig Mechanic	Safety Glasses, Ear Plugs
Analyst/Programmer	
Athletic Equipment Attendant	Job specific
Athletic Trainer	Job specific
Budget Analyst	Job specific
Building Service Engineer	Safety Glasses, Ear Plugs
Buyer	Job specific
Cert Auto/Equipment Mechanic Appren	Safety Glasses, Ear Plugs
Clinical Lab Technologist	Gloves, Safety Glasses
Cnfdntl Admin Support	Job specific
Cnfdntl Office Support	Job specific
Cnfdntl Tech Support	Job specific
Coach	Sports specific
Coaching Assistant	Sports specific
Coaching Specialist	Sports specific
Collections Rep	Job specific
Community Service Spec	Job specific
Credential Analyst	Job specific
Custodian	Gloves, Safety Glasses
Dept Chair	Job specific
Desktop Pub/Graph Spec	Job specific
Early Childhood Master Teacher	Job specific
Electrician	Gloves, Safety Glasses
Equip Tech, Electronic	Job specific
Equip Tech, Specialized Equip	Gloves, Safety Glasses, Ear Plugs
Evaluator	Job specific
Evaluator Trainee	Job specific

Facilities Maintenance Mech	Gloves, Safety Glasses, Ear Plugs
Facilities Project Supv.	Job specific
Groundsworker	Gloves, Safety Glasses, Ear Plugs. Hard Hats, Filter Masks
Head Athletic Trainer	Gloves, Safety Glasses
Head Coach	Gloves, Safety Glasses
Health Educator	Job specific
Health Information Tech	Job specific
Info Tech Consultant	Job specific
Bus Driver	Job specific
Instr Fac (non-Science)	Job specific
Instr Fac (Science)	Gloves, Lab Coats, Safety Glasses
Instr Stdnt Asst	Job specific
Instructional Support Tech	Job specific
Irrigation Specialist	Gloves, Safety Glasses
Laborer	Gloves, Safety Glasses, Ear Plugs, Hard Hats
Lead Auto/Equip Mechanic	Gloves, Safety Glasses
Lead Custodian	Gloves, Safety Glasses
Lead Groundsworker	Gloves, Safety Glasses
Lead Locksmith	Safety Glasses
Lecturer	Job specific
Librarian	Job specific
Library Services Spec	Job specific
Light Auto Equipment Operator	Job specific
Locksmith	Safety Glasses
Mail Clerk	Job specific
Media Prod Spec	Job specific
Medical Assistant	Gloves, Safety Glasses, Job specific
Network Analyst	Job specific
Nurse Practitioner	Gloves, Safety Glasses, Job specific
Operations Specialist	Job specific
Painter	Gloves, Safety Glasses, Respirators, Masks
Parking Officer	Job specific
Payroll Technician	Job specific
Performing Arts Tech	Gloves, Safety Glasses, Respirators
Pest Control and Spray Specialist	Gloves, Safety Glasses, Respirators
Pharmacist	Job specific
Physician Assistant	Gloves, Safety Glasses, Job specific

Physician – Primary Care	Gloves, Safety Glasses, Job specific
Plumber	Gloves, Safety Glasses, Hard Hats, Respirators
Police Dispatcher	Clothing, Job Specific
Police Officer	Clothing, Job Specific
President	Job specific
Pub Affairs/Comm Spec	Job specific
Registered Nurse	Gloves, Safety Glasses, Clothing
Reprographics Specialist	Job specific
Research Technician	Job specific
Sergeant	Clothing, Job Specific
Shipping and Receiving Ast	Job specific
Special Consultant	Job specific
Sr Budget Analyst	Job specific
Sr Planner/Estimator/Scheduler	Job specific
SSP Academic Related	Job specific
SSP	Job specific
Stock Clerk	Job specific
Substitute Instructional Facul	Job specific
Teaching Associate	Job specific

Table 4: PPE by Activity

ACTIVITY	PPE SUGGESTED
Asbestos Removal	Gloves, Safety Glasses, Respirators, Safety Shoes
Athletics	Sports specific (i.e., helmets, chest protectors, goggles, etc.)
Biology Lab	Gloves, Lab Coats, Safety Glasses, Respirators
Carpentry	Gloves, Safety Glasses, Respirators, Ear Plugs, Safety Shoes, Hard Hat
Chemistry Lab	Gloves, Lab Coats, Safety Glasses, Respirators
Cleaning	Gloves, Safety Glasses, Respirators
Computer Repair	Gloves, Safety Glasses
Construction	Gloves, Safety Glasses, Respirators, Ear Plugs, Safety Shoes, Hard Hats
Construction Eqpt. Oper	Gloves, Safety Glasses, Safety Shoes, Hard hats
Custodial Services	Gloves, Safety Glasses, Safety Shoes
Driving	Job specific
Electrical Work	Gloves, Safety Glasses, Safety Shoes, Hard hats
Elevated Work	Gloves, Safety Glasses, Safety Shoes, Hard hats
Excavation-Trenching	Gloves, Safety Glasses, Ear Plugs, Safety Shoes, Hard hats
Facilities Services	Gloves, Safety Glasses, Safety Shoes

Fire Fighting	Gloves, Safety Glasses, Respirators, Clothing, Safety Shoes, Hard Hats
Haz Mat Handling	Gloves, Safety Glasses, Respirators, Clothing, Safety Shoes
Interpreters	Job specific
Lab Work	Gloves, Safety Glasses, Respirators, Clothing
Landscape/Grounds	Gloves, Safety Glasses, Ear Plugs, Safety Shoes, Respirators, Hard hats
Laser Operations	Safety Glasses
Law Enforcement	Clothing, Job specific, Safety Shoes
Maintenance	Gloves, Safety Glasses, Respirators, Ear Plugs, Safety Shoes, Hard hats
Mechanical Services	Gloves, Safety Glasses, Respirators, Ear Plugs, Safety Shoes, Hard hat
Metal Working	Gloves, Safety Glasses, Face Shields, Respirators, Ear Plugs, Safety Shoes, Hard hats
Painting	Gloves, Safety Glasses, Respirators, Clothing, Safety Shoes, Hard hats
Plumbing	Gloves, Safety Glasses, Respirators, Safety Shoes, Hard hats
Rescue Work	Gloves, Safety Glasses, Respirators, Clothing, Ear Plugs, Safety Shoes, Hard hats
Roofing	Gloves, Safety Glasses, Safety Shoes, Hard hats
Science Instruction	Gloves, Safety Glasses, Respirators, Clothing
Set Construction	Gloves, Safety Glasses, Safety Shoes, Hard hats
Stone/Concrete Work	Gloves, Safety Glasses, Respirators, Ear Plugs, Safety Shoes, Hard hats
Tree Work	Gloves, Safety Glasses, Ear Plugs, Fall Protection, Safety Shoes, Hard hats
Vehicle Services	Gloves, Safety Glasses Respirators, Safety Shoes
Warehousing	Gloves, Safety Glasses, Safety Shoes, Hard hat
Window Cleaning	Job specific

Table 5: PPE by Body Part Affected

BODY PART	PPE SUGGESTED
Ears	Ear Plugs, Ear Muffs, Head Sets
Eyes	Goggles, Visors, Face Shields, Sun Glasses, Safety Glasses
General Body	HazMat Suits, Diving Suit, Lab Apron, Coveralls, Lab Coat, Shoulder Pads
Head	Hard Hats, Helmets, Bump Caps
Hands	Gloves (specific to hazard)
Limbs	Coveralls, Long Sleeve Shirts, Safety Shoes, Gloves, Hard Hat
Respiratory	Respirators (air supplied, air purifying, canister), Filter Masks
Skin	Clothing, Protective creams/ointments

Table 6: PPE by Hazard

HAZARD	PPE SUGGESTED
Airborne Contaminants	masks, respirators, coveralls, skin cream
Electrical Current	gloves, non-metal hard hats, clothing

Excessive Heat	clothing, cooling suits
Excessive Sound	ear plugs, ear muffs, head sets
Falling Objects	hard hat, bump cap
Fire	gloves, clothing, boots
Flying Metal Chips	safety glasses, goggles, face shields, hats
Harmful Dust	masks, respirators, coveralls, skin cream
Harmful Light	safety glasses, goggles, dark lens glasses, laser glasses
Hazardous Material Handling	gloves, safety glasses, goggles, face shields, clothing, creams
Hot Materials	gloves, work shoes, clothing, safety glasses, face shields
Ionizing Radiation	masks, special clothing, respirators, gloves
Laser Light	special glasses, clothing
Machine nip-points	safety glasses, gloves
Moving Equipment	safety glasses, metatarsal protectors, hard hats
Non-Ionizing Radiation	safety goggles, clothing, respirators, masks, gloves
Open Flame	safety goggles, clothing, gloves
Rolling Stock	work boots, metatarsal protection
Sharp Objects	gloves, clothing
Sunlight	sunglasses, goggles, skin creams, clothing

12.0 PPE Specifications

The California State Department of Industrial Relations, Division of Occupational Safety & Health, CCR Title 8 Regulations references the following recommendations regarding personal protective equipment.

12.1 Acquisition of PPE

a. The department person responsible for purchasing PPE should be very specific when ordering PPE so that there is a balance of quality, work efficiency and safety with the cost of the item.

b. The purchaser should select the protective equipment which ensures a level of protection greater than the minimum required to protect employees from the hazards.

c. When cost effective, an inventory of approved PPE should be maintained.

12.2 Maintenance & Care

a. All PPE must be kept clean and properly maintained. Cleaning is particularly important for eye and face protection because dirty or fogged lenses can impair vision.

b. PPE should be inspected, cleaned and maintained at regular intervals so that the equipment

continues to provide protection.

c. Personal protective equipment shall not be shared between employees until it has been properly cleaned and sanitized.

d. PPE will be distributed for individual use whenever possible.

e. Contaminated PPE must be disposed of in a manner that protects employees from exposure to hazards and complies with hazardous waste regulations. Contact S&RM for assistance with disposal.

f. Defective or damaged personal protective equipment shall not be used.

12.3 Fitting

a. Personal protective equipment issued shall not be modified, painted, or altered in any manner, unless specifically authorized in writing by the manufacturer.

b. PPE will be worn or utilized in accordance with the manufacturer's instructions and guidelines.

c. All PPE (whether University issued or employee owned) shall meet applicable standards for design, strength and quality as to provide adequate protection for the hazards in which they are designed.

d. PPE shall properly fit each affected employee and should be reasonably comfortable. For PPE devices with adjustable features, adjustments should be made on an individual basis for a comfortable fit that will maintain the protective device in the proper position.
   1. Particular care should be taken in fitting devices for eye protection against dust and chemical splash to ensure that the devices are sealed to the face.
   2. Proper fitting of a hard hat is important to ensure that it will not fall off during work operations. In some cases, a chin strap may be necessary to keep the hat on an employee's head.

e. The employee shall ensure that all personal protective equipment issued to him/her is properly maintained, serviced, and turned in for replacement as it becomes unserviceable or damaged.

f. Where personal protective clothing is not issued to individual employees, the department will ensure that any such clothing is properly serviced, maintained, and cleaned prior to issuing it for temporary or situational usage.

12.4 Storage & Distribution

a. When feasible, PPE should be kept in a clean, dust free locker, cabinet or area so that it is easily accessible to whomever needs it. Some PPE devices will have storage considerations specified by the manufacturer.

b. The department should make all PPE readily available to employees requiring hazard protection. When possible, reusable PPE devices may be assigned to individuals.

c. The following statement regarding service life will apply to all PPE:
   1. PPE is usually labeled by the manufacturer as reusable, for multiple wearing; or disposable, for one-time use. Follow the manufacturer's instructions.
   2. Service life of reusable PPE is dependent on many variables. It is the user's decision, with input from the supervisor and/or S&RM, to determine when multiuse type PPE should be decontaminated, repaired, or disposed. If service life instructions are given by the manufacturer for the PPE, follow the instructions.

12.5 Supervision & Enforcement

Department management is responsible for assuring each worker wears the appropriate PPE when exposed to hazards on the job. Any employee who fails to wear PPE, when required, may face disciplinary action per collective bargaining agreements.

13.0 Training

a. Training will be conducted by S&RM or the department, depending on the tasks, potential hazards and/or PPE required.

b. Departments shall ensure that employees are properly trained in the care, maintenance, and utilization of all personal protective equipment as related to their work areas and will consult with S&RM as needed.

c. Employees who are required to wear PPE shall be trained on the proper use of the PPE.

d. The training will include the following topics:
   - When the PPE is required
   - What PPE is necessary
   - How to properly don, doff, and adjust the PPE
   - PPE limitations
   - Proper care, maintenance, useful life, and disposal of the PPE

e. Training shall be provided initially or prior to performing task requiring the use of the PPE.

f. Each affected employee shall demonstrate an understanding of the training and the ability to use the PPE properly.

g. Refresher training will be provided annually where required under Cal/OSHA standards. Otherwise, refresher training will be provided periodically or when there are changes in the types of PPE or workplace rendering the previous training obsolete, or there is inadequacy in the employee's use of the PPE.

h. Training will be documented. Training conducted by the department will be maintained by the department. Copies of the sign-in sheets and training contents will be forwarded to S&RM when

requested.

14.0 Record Keeping

Written training records shall be kept of the names of persons trained, the type of training provided, who performed the training, and the dates when training occurred. Each department is responsible for maintaining its records and the reports it receives. Records will be stored in a secure location and will be accessible, on demand, to ensure the information is immediately available to S&RM. Employee training records shall be kept for at least 3 years.

All hazard assessments shall be kept by each department. S&RM shall maintain an inventory of hazard assessments on campus. Hazard assessments should be periodically reviewed to ensure they remain current and whenever an injury or illness occurs.

APPENDICES

Appendix A – Job Hazard Analysis/Job Safety Analysis
Appendix B – Instructions for Conducting a Job Hazard Analysis

Appendix A – Job Hazard Analysis/Job Safety Analysis

Stanislaus State
SAFETY AND RISK MANAGEMENT

Injury & Illness Prevention Program
Job Hazard/Safety Analysis

One University Circle, Turlock, California 95382
Phone: 209-667-3037 • www.csustan.edu/srm/ehs

Picture of task/equipment:	Date:	
	Task:	
	Department:	
	Person(s) performing the task:	
	Analyzed by:	
	Reviewed by:	
	Duration:	

Required PPE:

Required/Recommended Trainings:

STEPS	HAZARDS	CONTROLS
		•
		•
		•

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Appendix B – Instructions for Conducting a Job Hazard Analysis

Stanislaus State
SAFETY AND RISK MANAGEMENT

Instructions for Conducting a Job Hazard Analysis

How do I start?

1. **Involve employees.**
   - Discuss what you are going to do and why
   - Explain that you are studying the task, not employee performance
   - Involve the employees in the entire process
2. **Review your company's accident/injury/illness/near miss history to determine which jobs pose the highest risk to employees.**
3. **Identify the OSHA standards that apply to your jobs. Incorporate their requirements into your JHA.**
4. **Set priorities.**
   - You may want to give priority to:
     - Jobs with the highest injury or illness rates;
     - Jobs where there have been "close calls" - where an incident occurred but no one got hurt;
     - Jobs where you have identified violations of OSHA standards;
     - Jobs with the potential to cause serious injuries or illness, even if there is no history of such problems;
     - Jobs in which one simple human mistake could lead to severe injury;
     - Jobs that are new to your operation of have been changed; and
     - Jobs complex enough to require written instructions.

How do I do it?

1. Break the job task into steps.

- Watch the worker do the job and list each step-in order
- Begin each step with a verb, for example, "Turn on the saw."
- Do not make it too broad or too detailed
- You may want to photograph or videotape
- Review the steps with the worker and other workers who do the same job to make sure you have not left anything out.

EXAMPLE:

TASK	HAZARDS	RECOMMENDATIONS
1. Reach into box to the right of the machine, grasp casting and carry to wheel		

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2. Push casting against wheel to grind off burr.		
3.Place finished casting in box to the left of the machine.		

2. Identify the hazards of each step. For each hazard, ask:

- What can go wrong?
- What are the consequences?
- How could it happen?
- What are other contributing factors?
- How likely is it that the hazard will occur?

EXAMPLE:

TASK	HAZARDS	RECOMMENDATIONS
1. Reach into box to the right of the machine, grasp casting and carry to wheel	Strike hand on edge of metal box or casting; cut hand on burr. Drop casting on toes.	
2. Push casting against wheel to grind off burr.	Strike hand against wheel, sparks in eyes. Wheel breakage, dust, sleeves get caught	
3. Place finished casting in box to the left of the machine.	Strike hand against metal box or casting	

3. Review the list of hazards with employees who do the job. Discuss what could eliminate or reduce them.

4. Identify ways to eliminate or reduce the hazards.

- Safer way to do the job
- Describe each step
- Be specific - don't use generalizations like "Be Careful"
- Changes in equipment
- Equipment changes, or engineering controls, are the first choice because they can eliminate the hazard
- E.g. machine guards, improved lighting, better ventilation
- Changes in work processes
- Administrative controls, or changes in how the task is done, can be used if engineering controls aren't possible
- E.g. rotating jobs, changing the steps, training
- Changes in personal protective protective equipment
- When engineering and administrative controls aren't possible or don't adequately protect the workers, use personal protective equipment
- E.g. gloves, hearing protection

EXAMPLE

TASK	HAZARDS	RECOMMENDATIONS
1. Reach into box to the right of the machine, grasp casting and carry to wheel	Strike hand on edge of metal box or casting; cut hand on burr. Drop casting on toes.	Provide gloves and safety shoes.
2. Push casting against wheel to grind off burr.	Strike hand against wheel, sparks in eyes. Wheel breakage, dust, sleeves get caught	Provide larger guard over wheel. Install exhaust system. Install exhaust system. Provide safety goggles. Instruct employee to wear short sleeved shirts.
3. Place finished casting in box to the left of the machine.	Strike hand against metal box or casting	Provide tool for removal of completed stock.

What do I do next?

1. **Correct the unsafe conditions and processes.**
    - Train all employees who do the job on the changes
    - Make sure they understand the changes
2. **Review the JHAs.**
    - Periodically - you may find hazards you missed before
    - When the task or process is changed
    - When injuries or close calls occur when doing the task
3. **Use the JHAs.**
    - Training
    - Accident investigation

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Appendix B – Job Safety Analysis