INJURY & ILLNESS PREVENTION PLAN (IIPP)

University of California Riverside (UCR) Injury & Illness Prevention Plan (IIPP) describes specific requirements for program responsibility, compliance, communications, hazard assessment, accident/exposure investigations, hazard correction, training, and recordkeeping to maintain a safe and healthful working environment as required by the California Code of Regulations (CCR) Title 8, Section 3203.

University of California Riverside

Departmental Information

Department Name:	
Location(s) or Building(s)	Geology, Science Lab I, Pierce, GH06-GH08
Department Head Name:	David C. Volz
Department Safety Coordinator Name:	David C. Volz
Department Safety Coordinator Email:	david.volz@ucr.edu
Safety Committee Chair	Ying-Hsuan Lin
Safety Committee Chair Email	ying-hsuan.lin@ucr.edu
Date updated:	10/6/20

Safety Documents

Document	Document Location
Injury and Illness Prevention Plan (IIPP) *this document…*	Template online at http://ehs.ucr.edu under the *Programs* (Safety/IH) www.ehs.ucr.edu/safety/IIPP/iipp.html
Safety Data Sheets	Online at: www.ehs.ucr.edu/services/msds.html or directly at: www.ucmsds.com
Hazard Communication Program	Online at http://ehs.ucr.edu under the *Programs* (Safety/IH) www.ehs.ucr.edu/safety/Haz_Com/hazard_communication.html
Fire Prevention Plan (FPP)	Online at http://ehs.ucr.edu under the *Programs* (Fire) www.ehs.ucr.edu/fire/fire%20prevention%20plan.pdf
Emergency Action Plan (EAP)	Online at http://ehs.ucr.edu under the *Programs* (Emergency) www.ehs.ucr.edu/emergency/emergency%20action%20plan.pdf
Emergency Procedures	Online at http://ehs.ucr.edu under emergency www.ehs.ucr.edu/emergency/procedures
Emergency Contacts	On the entrance door safety placard & online at: http://econtact.ucr.edu/
Injury and Medical Treatment instructions	Online at http://ehs.ucr.edu under resources www.ehs.ucr.edu/resources/injuriesandmedicaltreatment.pdf
Training Records	Online at http://ehs.ucr.edu under the *Programs* (Training) or directly from http://ucrlearning.ucr.edu

Content

Summary

It is the responsibility of the Director of Environmental Health & Safety (EH&S) to create and maintain this Injury & Illness Prevention Plan (IIPP) and serve as **Program Administrator.** The Program Administrator has the authority to implement all provisions of this program. **All employees** are responsible for supporting the program and for working safely and maintaining a safe and healthful work environment

Authority

The University Injury & Illness Prevention Plan (IIPP) is created and distributed in accordance with UCR Campus Policy 425-58.

Purpose

The purpose of this plan is to establish the procedures for campus personnel to prevent/reduce injuries and illnesses.

Approvals

The University of California Riverside Injury & Illness Prevention Plan (IIPP) has been reviewed and approved by:

Beiwei Tu, CIH, CSP Safety and Industrial Hygiene Manager	Initial Effective Date: **February 18, 1992** Date of last Revision: **June 30, 2015**
Russell Vernon, Ph.D. Director of Environmental Health & Safety	This Injury & Illness Prevention Plan (IIPP) will be reviewed / updated annually.

Management Commitment

UC Policy

The University of California (the University) is committed to maintaining a safe environment for its students, academic appointees, staff, visitors, and members of the general public. he University will promote comprehensive injury and illness prevention, as well as hazardous materials and environmental management programs in an atmosphere that encourages employees, students, and other campus members to communicate about occupational and environmental health and safety matters without fear of reprisal. It is the policy of the University to conduct its operations in conformance with applicable laws, regulations, Department of Energy (DOE) requirements, and relevant published standards and practices for health, safety, and environmental protection.

UCR Policy

UCR Campus Policies (Section 425) provide statements informing all employees that safety is a priority issue with management, and urge employees to actively participate in the program for the common good of all concerned. These policies are available online at http://fboapps.ucr.edu/policies/

Roles and Responsibilities

Campus Roles and Responsibilities

UCR Campus Policies (Section 425) provide statements informing all employees that safety is a priority issue, and urge employees to actively participate in the program for the common good of all concerned. These policies are available online at http://fboapps.ucr.edu/policies/.

Chancellor

Is ultimately responsible for the effective implementation of the University's Environmental Health & Safety (EH&S) policies, including Injury and Illness Prevention Program (IIPP) at all facilities under campus control. General policies, which govern the activities and responsibilities of the Environmental Health and Safety program, are established under the authority of the Chancellor. Chancellor is responsible to:

- Demonstrate a genuine interest in safety-specific issues to ensure department head actions;
- Demonstrate support for the safety programs;
- Demonstrate that while safety is everyone's duty, it a function of management to ensure a safe working environment

As designated by the chancellor, the individual with responsibility for implementing the IIPP is the Director of Environmental Health & Safety (EH&S), hereafter referred to as the Program Administrator. The Program Administrator has the authority to implement all provisions of this program. All university employees are responsible for supporting the program and for working safely and maintaining a safe and healthful work environment.

Name: Russell Vernon
Title: Director, Environmental Health and Safety
Address: 900 University Ave
Riverside, CA 92521
Phone: 951-827-5119

Environmental Health & Safety (EH&S)

EH&S is responsible for:

- Providing consultation to all levels of UC Riverside staff and faculty regarding program compliance;
- Developing templates to assist Schools, Colleges, Departments, and Work Units in implementing effective Injury and Illness Prevention Plans;
- Consulting on hazard identification, procedures for correcting unsafe conditions and developing compliance strategies;

- Providing centralized monitoring of campus-wide activities in the areas of environmental compliance, biological safety, chemical hygiene, emergency preparedness, fire safety, hazard communication, hazard identification, hazardous materials management, industrial hygiene, occupational safety, sanitation, and safety education and training;
- Maintaining centralized environmental and employee exposure monitoring records, allowing employee access to records as directed by law;
- Assisting Schools, Colleges, Departments, and Work Units in developing and implementing Integrated Safety and Environmental Management (ISEM).

Vice Chancellors, Deans, and Executive Officers

The role of the senior management team is critical to the success of the Campus' safety efforts and the integration of safety accountability into the culture of the Campus. The senior management's role includes ensuring subordinate performance relative to safety activity, ensuring the quality of subordinate performance relative to safety, and demonstrating a strong personal belief that safety is important in the management of the Campus.

Department Roles and Responsibilities

The Department should be actively involved in implementing IIPP and has an obligation to ensure those in supervisory positions had the requisite support to implement the safety related accountabilities. Each department shall appoint a Department Safety Coordinator (DSC) or setup a departmental safety committee to monitor and facilitate program implementation.

Directors, Department Chairs / Unit Heads, Laboratory Directors and Managers

Are accountable for establishing, enacting maintaining and enforcing a **written IIPP**. Directors, Department Chairs/Unit Heads, Laboratory Directors and Manager shall

- Ensure areas under their management subscribe to and follow the five steps of the UC Riverside ISEM program;
- Hold periodic meetings, at least quarterly, or use other means of communication to discuss safety related issues;
- Establish safety planning procedures, as well as work rules and procedures, for all operations and exposures within their areas of responsibilities;
- Ensure that health and safety practices are consistent throughout the Work Unit;
- Monitor environmental health and safety performance;
- Include compliance with health and safety procedures as part of the annual performance evaluation;
- Designate a responsible person (Departmental Safety Coordinator (DSC) or Lab Safety Officer (LSO)), within each work unit under their management to partner with EH&S to implement the work unit specific component of the IIPP;
- Recognize employees that consistently perform safety and healthful work practices;
- Discipline employees who knowingly violate safety rules or polices.

Supervisors and Principal Investigators (PIs)

Supervisors are key figures in UCR's Injury and Illness Prevention Program (IIPP) implementation. It is important that they establish and maintain safe and healthful working conditions, and correct unsafe behaviors and conditions at a timely manner. Supervisors/Principle Investigators (PIs) should implement IIPP through the following actions:

- Subscribe to and follow the five steps of the UC Riverside ISEM program;
- Report and investigate all incidents and accidents within their areas of responsibilities to determine causes and take corrective/preventative action;
- Develop their own knowledge and skills in safety and health training relative to their areas of responsibilities and ensure that all employees receive safety training relative to their work exposure;
- Communicate health and safety practices through the area under their management;
- Provide required general and site specific training to employees
- Encourage employees to report safety concerns without fear of reprisal;
- Make sure that hazardous waste (Biological, Chemical, Radiological) are properly disposed;
- Make sure Standard Operating Procedures (SOPs) are created for high risk activities;
- Make sure hazardous conditions are corrected in a timely manner;
- Where appropriate, facilitate the implementation of:
  - o Workplace Inspections;
  - o Work unit specific staff training beyond the required EH&S safety courses offered.

Department Safety Coordinator

Department Safety Coordinators (DSCs) are appointed by each director, department chair, or department head. The amount of time needed to perform the assigned DSC duties will vary, depending on the type of work performed in the department, the number of people working there, and the facilities that it uses. EH&S will train and assist DSCs in completion of the departmental model Injury and Illness Prevention (IIP) Plan. DSCs are Responsible for following the requirements of the Injury and Illness Prevention Plan through the following actions:

- Act as departmental liaison to EH&S on health and safety issues;
- Update the department's written IIP plan as needed
- Assist supervisor in properly investigating and documenting all incidents and injuries;
- Communicate information on identified hazards, precautions and required corrective actions throughout the department;
- Conduct or coordinate periodic workplace self-inspections;
- Coordinate responses to employee occupational health and safety related complaints and concerns;
- Maintain central file of documents for injuries, departmental safety meetings, hazard corrections, employee safety training, if applicable.

- Assist in developing, maintaining, and coordinating training on emergency plans affecting the department;
- Contacts EH&S promptly in the event of regulatory inspection.

Individual Roles and Responsibilities

The success of UCR's Injury and Illness Prevention Program depends on the actions of all staff, faculty, students, and visitors. Employees are responsible for following the requirements of the IIPP through the following actions:

- Perform their assigned job functions in a safety and healthful manner
- Complete all EH&S required generic and site specific training
- Know who is the designated Departmental Safety Coordinator (DSC) or Lab Safety Office (LSO) for your work unit.
- Ask your DSC or LSO, supervisor or faculty when concerned about an unknown or hazardous situation or substance.
- Report all unsafe conditions, practices, or equipment to your supervisor, DSC or LSO, or to campus EH&S.

Safety Communications

UCR's communication system strives to be in a form "readily understandable by all affected employees." The system is designed to encourage employees to inform the employer of hazards at the workplace without fear of reprisal by being a two-way system of communication. Safety communications include: Supervisors, Committees, Training, Written Communications, and campus Policies & Procedures.

Supervisors

Supervisors are responsible for communicating with all workers about safety and health issues in a form readily understandable by all workers. All department personnel are encouraged to communicate safety concerns to their supervisor without fear of reprisal. Supervisors are responsible for ensuring that employees are given access to hazard information pertinent to their work assignments. Information concerning the health and safety hazards of tasks performed by department staff is available from a number of sources. These sources include, but are not limited to, Safety Data Sheets (SDS), equipment operating manuals, the Department Safety Coordinator, EH&S, campus libraries, container labels and work area postings.

Safety Talks/Tailgate Meetings

Safety talks can be used to supplement training materials, as safety meeting hand-outs, and as resources when conducting new work activities. These discussions provide valuable information on a variety of topics, including laboratory and chemical safety, worker safety and pest control. These resources are available online at http://ehs.ucr.edu (under "Resources").
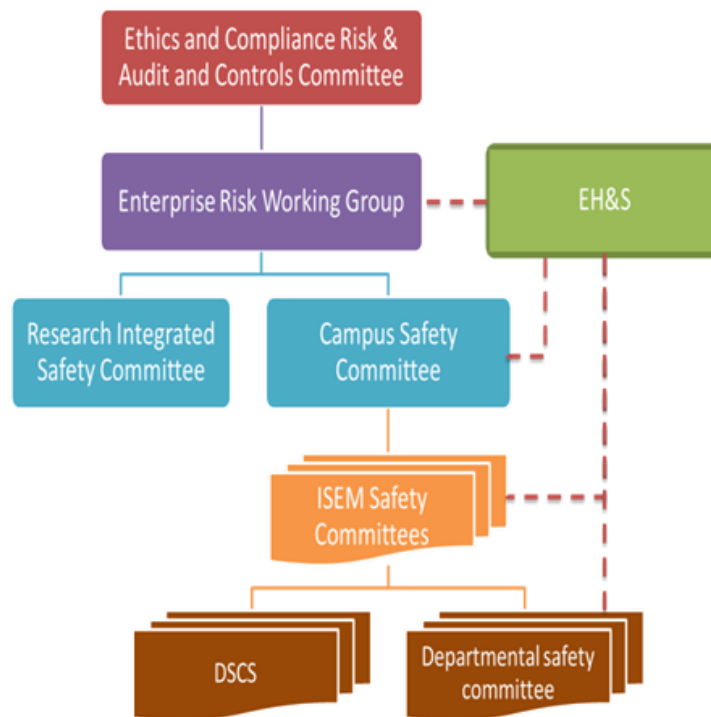
Committees

One way in which management can encourage employee participation in their workplace safety program is to create a Safety Committee. The committee can help share the responsibilities of implementing and monitoring the Safety Program.

Several committees provide forums where employees can freely and openly discuss safety together with members of campus management. These include the: Campus Safety Committee, organization level ISEM Safety Committees, and Departmental Safety Committees.

Information about the meeting dates/times/locations, minutes, and charters, can be found online at http://ehs.ucr.edu (under "About Us").

ISEM Safety Committee
Organization level ISEM safety committees are established to focus on promote safety awareness, build enthusiasm for safety programs and reduce/prevent injuries at local level. ISEM safety committees report to Campus Safety Committee. Following is the list of the current organization level ISEM committee:

- Safety Committee for Campus Counsel, Diversity/Excellence/Equity, Intercollegiate Athletics, Governmental Relations, University Advancement

- BCOE Safety Committee
- CNAS Safety Committee
- SOM Safety Committee

- CHASS Safety Committee

- Safety Committee for Campus Info. Services, Audit & Advisory Services, Graduate Division, Undergraduate Education, Academic Personnel, Administrative Solution, Strategic Academic

- FBO Safety Committee
- Student Affair Safety Committee
- Computing and Communication Safety Committee

- Library Safety Committee

- AGSM Safety Committee
- GSOE Safety Committee
- UNEX Safety Committee

The ISEM Safety Committees have the ongoing responsibility to monitor IIPP implementation, to assess compliance with applicable regulations and campus policies, to evaluate necessary corrective actions at the organization level. The ISEM Safety Committee meets at least quarterly and includes representatives from various departments of the organization unit. Each department has a designated representative on the committee. The Safety Committee membership may rotate periodically. The key responsibilities of the committees include:

- Serve as an organization liaison to assist safety program implementation;
- Review quarterly compliance scorecard;
- Review the results of periodic, scheduled workplace inspections to identify any needed safety procedures or programs and to track specific corrective actions;
- Review the summary of all incident investigations;
- Review organization injury data and develop organization specific plan to reduce incident and employee injuries;
- Review supervisors' investigations of accidents and injuries to ensure that all causes have been identified and all hazards have been corrected in a timely manner;
- Where appropriate, submit suggestions to department management for the prevention of future incidents;
- Review alleged hazardous conditions brought to the attention of any committee member, determine necessary corrective actions, and assign responsible parties and correction deadlines;
- When determined necessary by the Committee, the Committee may conduct its own investigation of accidents and/or alleged hazards to assist in establishing corrective actions;
- Submit recommendations to assist department management in the evaluation of employee safety suggestions.

The ISEM Safety Committee shall prepare and make available to all department personnel written minutes of issues discussed at the meetings. The Committee meeting minutes must be documented and maintained on file for at least one year.

Campus Safety Committee

The Campus Safety Committee (CSC) is the steering committee to manage and communication campus wide health and safety issues. The committee provides leadership and guidance for UCR safety program and committees, deal with environmental health and safety issues, polices and initiatives that affect the entire campus.

The campus safety committee membership is composed of chairs of the organization level ISEM committees and the committee is chaired by the EH&S Director. The committee meets quarterly and meeting minutes and other safety-related items are posted online at http://safety.ucr.edu.

- Review annual safety goals and objectives;
- Develop major safety performance indicator and track campus safety performance;
- Provide leadership and guideline to ISEM safety committees;
- Support and communicate safety message cross campus;
- Provide periodic report to upper management

Communications Resources

EH&S
Environmental Health & Safety (EH&S) provides the campus with the following written communications available online at http://ehs.ucr.edu (under "Resources"). Examples include Brochures, Fast Facts, UC Safety Spotlight, Handouts, Posters, Signs and Videos

Websites and Emails

Websites
Websites with real-time safety information and resources are available:

- *Environmental Health & Safety (EH&S)* *http://ehs.ucr.edu*

- *Safety at UCR* *http://safety.ucr.edu*

- *R'Space / R'Web portals* *http://rspace.ucr.edu* / *http://rweb.ucr.edu*

- *Campus Status (for emergencies)* *http://campusstatus.ucr.edu*

Emails
Messages are periodically sent to staff, faculty, and students using the campus Scotmail and Listserv systems.

Safety Suggestion box
Available at EH&S, and in some departments, to be used by employees, anonymously if desired, for communicating their concerns to management.

Safety Data Sheets
Safety Data Sheets (SDSs) provide information on the potential hazards of products or chemicals. SDSs are available online at http://ehs.ucr.edu under "Services", and over the Internet from a variety of sources. To assist with locating and uses SDSs, EH&S provides fact sheets, websites, and training.

Equipment Operating Manuals
All equipment is to be operated in accordance with the manufacturer's instructions, as specified in the equipment's operating manual. Copies of operating manuals should be kept with each piece of equipment in the department. Persons who are unfamiliar with the operation of a piece of equipment and its potential hazards must at least read the operating manual before using the equipment. Training should also be sought from an experienced operator or supervisor.

Hazard Identification and Control

Hazard identification and control is an ongoing process and is fundamental to the effectiveness of the IIPP.

Integrated Safety and Environmental Management (ISEM)

Systematically integrate health, safety, environmental considerations, and sustainable use of natural resources into all activities is an effective method of reduce accidents and employee injuries. Five core safety and environmental management functions provide the necessary framework for any activity that could potentially affect faculty, staff, students, visitors, the public, or the environment. The functions are applied as a continuous cycle with the degree of rigor appropriate to address the type of activity and the hazard or environmental aspect involved. Following is a brief summary of the 5 steps

ISEM process:

1. Define the Scope of Activities
   Goals and programs are translated into activities, expectations are set, tasks are identified and prioritized, and resources are allocated.

2. Analyze the Hazards
   Hazards and environmental aspects associated with the activities are identified, analyzed, and categorized.

3. Develop and Implement Hazard and Operational Controls
   Applicable standards and requirements are identified and agreed upon, controls to prevent/mitigate hazards and aspects are identified, the safety and environmental parameters are established and controls are implemented.

4. Perform Activities within Established Controls
   Readiness is confirmed and activities are performed safely and in compliance with applicable regulations and policies.

5. Provide Feedback and Assure Continuous Improvement
   The appropriate parties obtain feedback on the adequacy of controls, identify opportunities for improving the definition and planning of activities, conduct departmental and independent oversight and, if necessary, participate in regulatory enforcement actions. As a complement to departmental management, the campus EH&S offices may be contacted to provide safety and environmental assistance, consultation, and independent oversight functions.

Hazard Reports

All Employees are encouraged to report unsafe conditions and practice in their work areas to their supervisor, DSC, Safety Committee Members and EH&S. Employee may also report an unsafe condition or hazard using the Hazard Report form available online at http://ehs.ucr.edu (under "Forms"), anonymously if desired. The "Hazard Report form" should be filled out when a referral is made to the Safety Committee as a result of a condition discovered during an inspection for which the responsible supervisor could not determine an immediate remedy.

Inspections / Audits

Regular safety inspections of all departmental administrative, warehouse, hazard waste storage, shops, and laboratories must be conducted. By law, the first of these inspections must take place when the department first adopts the IIPP. The inspections, and corrective actions, should be noted on the corresponding inspections/audit checklists available online at http://ehs.ucr.edu (under "Forms"), and maintained by departments. Corrective actions generated during these regular inspections will be supplemented with additional inspections whenever new substances, processes, procedures, or equipment introduced into the workplace represent a new occupational safety and health hazard or whenever supervisors are made aware of a new or previously unrecognized hazard.

EH&S periodically evaluates the inspections/audits, and provides reports to departmental and campus management on the inspection results and implementation of corrective actions.

Correcting Unsafe / Unhealthy Conditions

Unsafe or unhealthy working conditions, practices or procedures shall be corrected in a timely manner based on the severity of the hazards. Generally, supervisors are responsible for identification and correction of hazards that their staff and/or students face and should ensure that work areas they exercise control over are inspected at least annually. Supervisors should check for safe work practices with each visit to the workplace and should provide immediate verbal feedback where hazards are observed. Supervisors of affected employees are expected to correct unsafe conditions as quickly as possible after discovery of a hazard.

Procedures

Specific procedures that can be used to correct hazards include, but are not limited to, the following:

- Tagging unsafe equipment with "Temporarily Out of Service" signs and providing a list of alternative tools or procedures for employees to use until the item is repaired.
- Stopping unsafe work practices and providing retraining on proper procedures before work resumes.
- Reinforcing and explaining the need for proper personal protective equipment and ensuring its availability.
- Barricading areas that have chemical spills or other hazards and reporting the hazardous conditions to a supervisor or Building Coordinator.

Imminent Hazards

If an imminent hazard exists, work in the area should stop, and the appropriate supervisor must be contacted immediately. If the hazard cannot be immediately corrected without endangering employees or property, all personnel need to be removed from the area except those qualified and necessary to correct the condition. These qualified individuals will be equipped with necessary safeguards before addressing the situation.

Accident Investigation

Injury Reports

Employees who are injured at work must report the injury immediately to their supervisor. Students who are not employees who are injured or involved in an accident should report the incident to their instructor. In either case, if immediate medical treatment is needed, seek medical treatment first. The injured party will be taken to the appropriate hospital or medical facility.

The supervisor of the injured employee must work with designated department personnel to ensure that the UCR *Injury and Incident Investigation* report is completed properly and submitted to Workers' Compensation within 48 hours. This form is available online at http://ehs.ucr.edu (under "Forms").

Report within 8 hours to Cal/OSHA and EH&S (951) 827-5528 ehs@ucr.edu following the procedures in Appendix A "Report severe injuries and fatalities" any work related:
- Fatality
- Injury or illness which requires inpatient hospitalization (for a period in excess of 24 hours), or in which an individual suffers a loss of any member of the body or any serious degree of permanent disfigurement
- Inpatient hospitalization does not include medical observation.

Incident Investigation

The supervisor is responsible for performing an initial investigation to determine and correct the cause(s) of the incident. Specific procedures that can be used to investigate workplace accidents and hazardous substance exposures include:
- Interviewing injured personnel and witnesses.
- Examining the injured employee's workstation for contributing factors.
- Reviewing established procedures to ensuring they are adequate and were followed.
- Reviewing training records of affected employees.
- Determining all contributing causes to the accident.
- Taking corrective actions to prevent the accident/exposure from reoccurring.
- Recording all findings and actions taken.

The supervisor's findings and corrective actions are documented onto the UCR **Injury and Incident Investigation report** and reviewed by the organization level ISEM safety committee and EH&S.

The ISEM Safety Committee and EH&S will review each accident or injury report to ensure that the investigation was thorough and that all corrective actions are completed. Investigations and/or corrective actions that are found to be incomplete, the accident or injury report will be routed back to the supervisor for further follow-up, with specific recommendations noted by the committee and EH&S.

Training

Supervisors are responsible for providing training to their employees:

- To all staff, faculty, students, and affiliates (new and existing),
- To all staff and faculty given new job assignments for which training has not been previously received,
- Whenever new substances, processes, procedures or equipment are introduced to the workplace and present a new hazard.
- Whenever there is awareness of a new or previously unrecognized hazard.

Employee safety training is provided at no cost to the employee and is conducted during the employee's normal working hours on University time. Safety training may be presented by a knowledgeable supervisor, other department personnel, or by representatives from other relevant campus departments.

Initial IIPP Training

When the IIPP is first implemented, all department personnel will be trained on the structure of the IIPP, including individual responsibilities under the program, and the availability of the written program. Training will also be provided on how to report unsafe conditions, how to access the Safety Committee, and where to obtain information on workplace safety and health issues.

Personnel hired after the initial training sessions will be oriented on this material as soon as possible by the Safety Coordinator or appropriate supervisor. These individual training sessions should also be documented.

Training on Specific Hazards

Supervisors are required to be trained on the hazards to which the employees under their immediate control may be exposed. This training aids a supervisor in understanding and enforcing proper protective measures.

All supervisors must ensure that the personnel they supervise receive appropriate training on the specific hazards of work they perform, and the proper precautions for protection against those hazards. Training is particularly important for new employees and whenever a new hazard is introduced into the workplace. Such hazards may include new equipment, hazardous materials, or procedures. Health and Safety training is also required when employees are given new job assignments on which they have not previously been trained and whenever a supervisor is made aware of a new or previously unrecognized hazard.

Required training

Training identified by regulatory agencies will be considered mandatory, and must be completed. Minimum safety training courses are outlined as follows:

Non Laboratories (e.g., Offices, Classrooms, Arts / Crafts / Shops / Studios, Dining, Housing, Health Center, etc.)	Laboratories (e.g., Research, Teaching Labs, Field Operations, etc.)
Minimum requirements	Minimum requirements

• Safety Orientation	• Laboratory Safety Orientation
	• Hazardous Waste Management

Depending on the activity of the personnel, additional courses must be completed per the training **Needs Assessment** available at http://ehs.ucr.edu/training.
All individuals shall complete either general Safety Orientation (within 30 days of hire), or Laboratory Safety Orientation (before beginning work in a Laboratory/Technical Area). The course must be approved by EH&S Training. This requirement does not apply to undergraduate students taking courses offered in the course catalog of that campus, unless the work occurs within a research laboratory/technical area.

Needs Assessment

Identification of required training shall be based on hazards (activities or tasks), and accomplished using a training needs assessment, hazard assessment, training matrix, accident / incident investigation report, job hazard analysis / job safety analysis, or any document that provides a risk assessment. The results of a training needs assessment (or equivalent) must be incorporated into a training plan that is implemented by the supervisor and individual(s). Training plans may be developed for a group of individuals (or by position) upon consultation with EH&S Training staff. Training plans must be developed before individuals assume a new job function, or a new task.

Training Records

Documentation of training shall include the following elements:
1. Course name
2. Name of participant(s)
3. Name of instructor(s) or method of delivery (e.g., "Online", or "Self-Paced")
4. Date
5. Topics covered (or other way in which topics can be identified, such as through a course code)

Documentation may be recorded using the roster template in Appendix B "Training Record", or online at http://ehs.ucr.edu/training.
Records shall be kept (at minimum) for five years after the training. Thereafter, data shall be maintained in an electronic database indefinitely. Record-keeping shall be decentralized; maintained by supervisors and/or departments who provide training. Records shall be identifiable, retained, and accessible. Data shall be centralized; maintained using an electronic database, such as a campus learning management system (LMS).

Recordkeeping

Documents related to the IIPP are maintained in a safe and convenient location for record keeping. Documents that should be kept on file at UCR include:

Campus Records

- Hazard Reports (or Reports of Unsafe Conditions or Hazards)
- Safety Committee meeting documentation
- Training records (database)

- Incident and Investigation Reports
- Exposure Records

Department Records

- Inspections/Audits, including the persons conducting the inspection, any identified unsafe conditions or work practices, and corrective actions.
- Safety meetings (agendas, minutes, handouts)
- Safety talks
- Authorizations & Permits (e.g., Confined Space permits, Hot work permits, Biological Use Authorization, Controlled Substance Use Authorization, Radiation Use Authorization, etc.)
- Training records (rosters, tests, training materials)
- Other

Safety Planning, Rules, & Work Procedures

Ensuring compliance

All personnel have the responsibility for complying with safe and healthful work practices, including applicable regulations, campus policy, and departmental safety procedures. Overall performance in maintenance of a safe and healthy work environment should be recognized by the supervisor and noted in performance evaluations. Employees will not be discriminated against for work-related injuries, and injuries will not be included in performance evaluations, unless the injuries were a result of an unsafe act on the part of the employee.

Standard progressive disciplinary measures in accordance with the applicable personnel policy or labor contract will result when employees fail to comply with applicable regulations, campus policy, and/or departmental safety procedures. Faculty members will be disciplined for unsafe practices in accordance with the Faculty Code of Conduct. Students not employed by the University will be disciplined for unsafe practices in accordance with the Student Code of Conduct. All personnel will be given instruction and an opportunity to correct unsafe behavior. Repeated failure to comply or willful and intentional noncompliance may result in disciplinary measures up to and including termination.

Heat Illness Prevention

All employees work outdoors should follow heat illness prevention procedures listed in Appendix C. if the employee works at a remote location, addition emergency responds information specific for the location needs to be developed by the department.

Appendices

These documents are available online:

      Appendix A: Report severe injuries and fatalities
      Appendix B: Training Record (roster)
      Appendix C: Heat Illness Prevention Procedure Manual

Appendix A. Report Severe Injuries and Fatalities

Any work related fatality, injury or illness that requires inpatient hospitalization for a period in excess of 24 hours for other than medical observation or in which an employee suffers a loss of any member of the body or suffers any serious degree of permanent disfigurement shall be report to Cal/OSHA within 8 hours.

1. Record following information for the work related fatality or serious injury and illness

Employer Name:	University of California Riverside
Employer Phone:	951-827-5528
Employer Address:	900 University Ave, Riverside CA 92521
Name and title of person reporting the incident:	
Phone number of person reporting the incident:	
Name of employer representative to contact at site of incident:	Beiwei Tu, Safety & IH Manager, EH&S
Date and time of incident:	
Location or site of incident:	
Name and Department of injured employee:	
Address of injured employee:	
Phone of injured employee:	
Nature of injury (example: death, amputation of left arm, puncture wound to right thigh)	
Description of incident and whether the incident scene or instrumentality has been altered	
List and identity of any law enforcement agencies present at the site of the incident:	

2. **CALL CAL/OSHA SAN BERNARDINO OFFICE (TEL. (909) 383-4321) WITHIN 8 HOURS OF KNOWING ABOUT THE INJURY OR ILLNESS** to report the fatality or serious injuries or illness information listed above. Please record following while reporting the incident to Cal/OSHA:

Date and time Reported:	
Cal/OSHA representative:	
Title of the OSHA Rep:	
Any additional information discussed during the call to Cal/OSHA	

3. Fax a copy of this form to EHS (**Fax (951) 827-5122)** or call EHS (**Tel. (951) 827-5528**) or email ehs@ucr.edu within 24 hours with this report.

Appendix B: Training Record (roster)

Course:
Topics:
Name of Supervisor/PI:

Name	Identification*	Date Trained	Student Initial**	Instructor Initial***

*Identification: Enter your Student ID, Employee ID, UCR NetID, UCR Email, or Date of Birth.
**Student Initial: By my initials I acknowledge that I received and understood training.
***Instructor Initial: By my initials I certify that the individuals on this roster have successfully passed the course (assessment).

Appendix C: Heat Illness Prevention Procedures Manual

A. Applicability

This Heat Illness Prevention Procedures Manual has been created to comply with [California Code of Regulations Title 8, Section 3395, Heat Illness Prevention](). The Heat Illness Prevention standard is applicable to any outdoor workplace, whenever environmental or personal risk factors for heat illness are present.

B. Responsibilities

Department Director/Chair/Deans are responsible for insuring that this written procedures manual is implemented and available to employees, and that training is provided to employees. Supervisors must evaluate work conditions before sending employees to perform outdoor work in hot conditions. Cal/OSHA defines a trigger temperature and "shade up" provisions when temperatures reach 80°F, and "high heat" procedures at 95°F. Typically, temperatures above 80°F, especially with heavy physical work activities, would represent conditions where there is a risk of heat illness. Other factors, such as high humidity or work activities restrict the body's ability to cool itself, such as protective clothing, could result in a risk of heat illness at lower temperatures.

C. Recognizing Heat Illness Risk Factors

Personal Risk Factors

Personal risk factors for heat illness include;

- **General Health & Age:** Those at greatest risk for heat-related illness include people $\geq$ 65 years old, overweight, ill or taking certain medications. Additional risk factors include; fever, dehydration, heart disease, mental illness, poor circulation, and sunburn.
- **Acclimatization:** the temporary adaptation of the body to work in the heat that occurs gradually with exposure to ambient heat. The body needs time to adapt to working in the heat. When temperatures rise suddenly, an employee is at increased risk for heat illness while their body acclimatizes to the heat. Acclimatization is particularly important for employees who are returning to work after a prolonged absence, recent illness, or recently moving from a cool to hot climate. For heavy work under very hot conditions, a period of 4-10 days of progressively increasing work time is recommended. For less severe conditions, 2-3 days of increasing work activity and duration are recommended (for guidance, see Attachment A).
- **Alcohol & Caffeine:** Alcoholic beverages, coffee, tea or other drinks containing caffeine will dehydrate the body and increase the risk of heat illnesses.

Environmental Risk Factors

Environmental risk factors for heat illness are defined in the regulation as 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.

The Heat Index (HI) is the temperature the body feels when heat and humidity are combined. The chart below shows the HI that corresponds to the actual air temperature and relative humidity. This chart is based upon shady, light wind conditions. Exposure to direct sunlight can increase the HI by up to 15°F. This table can be used in consideration of the risk factors and the subsequent need for water, rest and shade.   Regardless of the actual ambient temperature, provision of water and shade as described above should be implemented whenever the Heat Index exceeds 90°F. See attachment B for guidance on monitoring the weather.

Temperature (°F)

Relative Humidity (%)	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129	137				
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	105	112	119	126	134						
75	84	88	92	97	103	109	116	124	132							
80	84	89	94	100	106	113	121	129								
85	85	90	96	102	110	117	126	135								
90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127										
100	87	95	103	112	121	132										

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

■ Caution   ■ Extreme Caution   ■ Danger   ■ Extreme Danger

D. Identifying Heat Illness

Heat illness is a group of serious and escalating medical conditions that can result from the body's inability to cope with a particular heat load. These illnesses include heat fatigue, heat cramps, heat exhaustion, and heat stroke. The National Institute of Occupational Safety and Health (NIOSH) publication *Working in Hot Environments* describes the symptoms and response measures for several types of heat illness, as follows:

- **Transient Heat Fatigue:** refers to the temporary state of discomfort and mental or psychological strain arising from prolonged heat exposure. Workers unaccustomed to the heat are particularly susceptible and can suffer, to varying degrees, a decline in task performance, coordination, alertness, and vigilance. The severity of transient heat fatigue will be lessened by a period of gradual adjustment to the hot environment (heat acclimatization).

- **Heat Rash:** also known as prickly heat, is likely to occur in hot, humid environments where sweat is not easily removed from the surface of the skin by evaporation and the skin remains wet most of the time. The sweat ducts become plugged and a skin rash soon appears. When the rash is extensive or when it is complicated by infection, prickly heat can be very uncomfortable and may reduce a worker's performance. The worker can prevent this condition by resting in a cool place part of each day and by regularly bathing and drying the skin.

- **Heat Cramps:** are painful spasms of the muscles that occur among those who sweat profusely in heat, drink large quantities of water, but do not adequately replace the body's salt loss. The drinking of large quantities of water tends to dilute the body's fluids, while the body continues to lose salt. Shortly thereafter, the low salt level in the muscles causes painful cramps. The affected muscles may be part of the arms, legs, or abdomen, but tired muscles (those used in performing the work) are usually the ones most susceptible to cramps. Cramps may occur during or after work hours and may be relieved by taking salted liquids by mouth. CAUTION: Persons with heart problems or those on a low sodium diet who work in hot environments should consult a physician about what to do under these conditions.

- **Heat Exhaustion:** includes several clinical disorders having symptoms which may resemble the early symptoms of heat stroke. Heat exhaustion is caused by the loss of large amounts of fluid by sweating, sometimes with excessive loss of salt. A worker suffering from heat exhaustion still sweats but experiences extreme weakness or fatigue, giddiness, nausea, or headache. In more serious cases, the victim may vomit or lose consciousness. The skin is clammy and moist, the complexion is pale or flushed, and the body temperature is normal or only slightly elevated. In most cases, treatment involves having the victim rest in a cool place and drink plenty of liquids. Victims with mild cases of heat exhaustion usually recover spontaneously with this treatment. Those with severe cases may require extended care for several days. There are no known permanent effects. CAUTION: Persons with heart problems or those on a low sodium diet who work in hot environments should consult a physician about what to do under these conditions.

- **Heat Stroke**: is the most serious of health problems associated with working in hot environments. It occurs when the body's temperature regulatory system fails and sweating becomes inadequate. The body's only effective means of removing excess heat is compromised with little warning to the victim that a crisis stage has been reached. A heat stroke victim's skin is hot, usually dry, red or spotted. Body temperature is usually 105°F or higher, and the victim is mentally confused, delirious, perhaps in convulsions, or unconscious. Unless the victim receives quick and appropriate treatment, death can occur. Any person with signs or symptoms of heat stroke requires immediate hospitalization. However, first aid should be immediately administered. This includes removing the victim to a cool area, thoroughly soaking the clothing with water, and vigorously fanning the body to increase cooling. Further treatment at a medical facility should be directed to the continuation of the cooling process and the monitoring of complications which often accompany the heat stroke.

Early recognition and treatment of heat stroke are the only means of preventing permanent brain damage or death.

E. <u>Prevention Procedures</u>

General Prevention

- Rest in shaded areas
- Stay hydrated
- Avoid vigorous physical activities in hot and humid weather
- At work, if you must perform physical activities in hot weather:
  - Drink plenty of fluids
  - Avoid alcohol, coffee, and tea - may lead to dehydration
  - Take frequent mini-breaks to hydrate yourself
  - As practical; wear hats, light colored, and light/loose clothes

Provision of Water

Employees are encouraged to drink water frequently and clean, fresh, and cool potable water shall be readily available to employees.

- Supervisors are responsible to ensure employees have an adequate supply of drinking water (for guidance, see Attachment C).
- Supervisors shall encourage the frequent consumption of small quantities of water, up to 4 cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties.
- Drinking water will be provided in sufficient quantities to provide one quart per employee per hour for the entire shift (at least 2 gallons per employee for an 8-hour shift).
- If there are effective procedures for replenishing the water supply during the shift, a minimum of 2 quarts of water per employee may be provided at the beginning of the shift.

Shade and Rest

A shaded area will be provided which employees may use when they are suffering from heat illness or believe they need a recovery period to prevent heat illness (for guidance, see Attachment D). The shaded area shall be open to the air or ventilated and cooled and access shall be permitted at all times. Canopies, umbrellas or other temporary structures may be used to provide shade, provided they block direct sunlight. Supervisors are responsible for:

- Ensuring that employees have access to shaded or air conditioned areas (i.e. break room) to prevent or recover from heat illness symptoms or to take rest breaks.
- Emphasizing the importance of taking rest breaks and recognizing when a recovery period is needed
- In the event an employee feels discomfort from the heat, accommodating a recovery period to allow the employee to cool down and prevent the onset of heat illness.

High-Heat Procedures:

Additional high-heat procedures are required when the temperature equals or exceeds 95 degrees Fahrenheit. These procedures shall include the following to the extent practicable:

- Ensuring that effective communication by voice, observation, or electronic means is maintained so that employees at the work site can contact a supervisor when necessary. An electronic device, such as a cell phone or text messaging device, may be used for this purpose only if reception in the area is reliable.
- Observing employees for alertness and signs or symptoms of heat illness.
- Reminding employees throughout the work shift to drink plenty of water.
- Designating one or more employees on each worksite as authorized to call for emergency medical services, and allowing other employees to call for emergency services when no designated employee is available.
- Conducting pre-shift meetings before the commencement of work to review the high heat procedures, encouraging employees to drink plenty of water, and reminding employees of their right to take a cool-down rest when necessary.
- For Agriculture work sites, employee shall take minimum one 10-minute "preventative cool-down rest period" every 2 hours.

F. <u>Responding to Heat Illness Emergencies</u>

Employee Procedures

Any employee who recognizes the symptoms or signs of heat illness in themselves or in co-workers should immediately report this condition to their supervisor. When you recognize signs of heat illness in yourself or in a co-worker:

- Move them to a shaded area for a recovery period of at least five minutes
- If the condition appears to be severe or the employee does not recover, then emergency medical care is needed.
- Immediately report to your supervisor any symptoms or signs of your heat illness you may be experiencing or observing in a co-worker
- Call 911 if supervisor is not readily available

Supervisor Procedures

Supervisors shall:

- Carry cell phones, radios or other means of communication ensuring emergency services can be called and verifying the radios or other means of communication are functional prior to each shift.
- Know the exact work locations and have clearly written and precise directions to the work site for emergency responders.

Emergency Contact Procedures

- Call 911

- Be ready to provide emergency response personnel with directions to work location.
- When working at remote locations you must be able to provide concise directions to emergency response personnel for guidance, see Attachment E)

Further emergency response guidance for supervisors is provided in Attachment F.

Response to Heat Stroke Symptoms:

- Victims of heat stroke must receive immediate treatment to avoid permanent organ damage.
- Always notify emergency services (911) immediately. If their arrival is delayed, they can give you further instructions for treatment of the victim.
- If possible, get the victim to a shady area to rest
- Remove heavy or change to lightweight clothing,
- Cool the victim; effective cooling measures include:
- Administering cool, non-alcoholic beverages,
- Applying cool or tepid water to the skin (for example you may spray the victim with cool water from a garden hose),
- Providing a cool shower or sponge bath,
- Move to an air-conditioned environment or fan the victim to promote evaporation,
- Place ice packs under armpits and groins.
- Monitor body temperature with a thermometer and continue cooling efforts until the body temperature drops to 101-102 degrees.

G. <u>Employee and Supervisor Training</u>

All employees, including supervisors, who may work outdoors in conditions where there are environmental risk factors for heat illness shall be provided Heat Illness Prevention training on the information contained in this document including;

- Environmental and personal risk factors for heat illness as well as the added burden of heat load on the body caused by exertion, clothing, and personal protective equipment
- Procedures for complying with the Cal/OSHA requirements
- The importance of frequent consumption of water, up to 4 cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties
- The importance of acclimatization,
- The different types of heat illness and the common signs and symptoms of heat illness,
- Importance to employees of immediately reporting symptoms or signs of heat illness in themselves, or in co-workers,
- Employer's procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided,
- Procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider including clear and precise directions to the work site

In addition, prior to supervising employees performing work that should reasonably be anticipated to result in exposure to the risk of heat illness, effective training on the following topics shall be provided to the supervisor:

- The supervisor shall be trained on their responsibilities in this heat illness prevention program
- The procedures the supervisor is to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures
- How to monitor weather reports and how to respond to hot weather advisories

Further information can be found in the attached guidelines.

Attachment A: Acclimatization Guidance

When ambient temperatures rise to levels higher than employees are accustomed, supervisors must act effectively by taking the following measures:

- Monitor the weather and be aware of sudden heat wave(s) or increases in temperatures to which employees haven't been exposed to for several weeks or longer.

- Cut short or re-schedule the work day during a heat wave or heat spike (e.g., a sudden increase in daytime temperature of 9°F or more). During the hot summer months, the work shift may start earlier in the day or later in the evening.

- Lessen the intensity of work for new employees during a two-week break-in period (i.e. scheduling slower paced, less physically demanding work during the hot parts of the day and the heaviest work activities during the cooler parts of the day). New employees may be assigned to a "buddy" or experienced coworker to watch each other closely for discomfort or symptoms of heat illness.

- Closely observe all employees during a heat wave and monitor for possible symptoms of heat illness. For employees working in remote locations, maintain frequent communication by phone or radio.

- Train employees and supervisors on the importance of acclimatization.

Attachment B: Guidance- Monitoring the Weather

Recommended Equipment:

Supervisors may find a Heat Index chart, radio, cell phone, and thermometer helpful in monitoring the weather. Supervisors can access the internet (www.nws.nooa.gov), Google (www.google.com) for "weather and location zip code", or check the Weather Channel TV Network to view the extended weather forecast in order to plan in advance the work schedule, know whether a heat wave is expected and if additional schedule modifications will be necessary. Supervisors without internet access can call the California "*Dial a forecast*" numbers:

- Eureka 707-443-7062
- Hanford 559-584-8047
- Los Angeles 805-988-6610(#1)
- Sacramento 916-979-3051
- San Diego 858-297-2107(#1)
- San Francisco 831-656-1725(#1)

Prior to each workday supervisors should:

- Review the forecasted temperature and humidity for the worksite and compare it against the National Weather Service Heat Index guideline to evaluate the risk level for heat illness.
   - Employees working in direct sunlight are at greater risk and there is a need to adjust the heat index down 15 degrees F.
- Monitor the weather (using www.nws.nooa.gov or with the aid of a simple thermometer) at the worksite. This critical weather information will be taken into consideration, to determine when it will be necessary to make modifications to the work schedule (such as stopping work early, rescheduling the job, working at night or during the cooler hours of the day, increasing the number of water and rest breaks).
- Use a thermometer at the work location and check the temperature every 60 minutes to monitor for sudden increases in temperature, to ensure that once the temperature exceeds 80°F, the shade structures are opened and accessible to the workers and to make certain that once the temperature equals or exceeds 95°F additional High Heat Procedures are implemented.

Attachment C: Guidance on provision of water

Recommended Equipment:

- Water and drink containers, ice, cleaning equipment, whistle or horn

Supervisors must ensure;

- Drinking water containers (5 to 10 gallons each) are brought to the site, so that at least 2 quarts per employee are available at the start of the shift.
- Drink containers ensuring enough disposable cups are made available for each worker and are kept clean until used.
- The water level of all containers every 30-60 minutes and more frequently when the temperature exceeds 90°F. When the water level within a container drops below 50%, water containers will be refilled with cool water. Additional water containers (i.e. 5 gallon bottles) will be available to replace water as needed.
- When the temperature exceeds 90°F carry ice in separate containers, so that when necessary, it will be added to the drinking water to keep it cool.
- Check the work site and place the water as close as possible to the employees (i.e. no more than 50-100 feet from the workers). If field terrain prevents the water from being placed as close as possible to the workers, bottled water or individual containers (in addition to disposable cups and water containers), will be provided so that workers can have drinking water readily accessible.
- Water containers will be relocated to follow along as the work moves, so drinking water will be readily accessible.
- Encourage employees to frequently consume small quantities of water, up to 4 cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties.
- Provide clean water containers and keep in sanitary condition
- Advise employees of the daily location of the water coolers and remind them to drink water frequently. When the temperature exceeds or is expected to exceed 90°F, hold a brief 'tailgate' meeting each morning to review with employees the importance of drinking water, the number and schedule of water and rest breaks and the signs and symptoms of heat illness.
- Use audible devices (such as whistles or air horns) to remind employees to drink water.
- Increase the number of water breaks when the temperature equals or exceeds 95°F or during a heat wave remind workers throughout the work shift to drink water.
- Stress during employee training, the importance of frequent drinking of water.

Attachment D: Access to Shade requirements

Recommended Equipment:

- Portable canopies, large beach-style umbrellas, or other shade structures, also; chairs, benches, sheets, towels,

Supervisors must ensure:

- Shade structures are brought to the site, to accommodate the employees on the shift and either chairs, benches, sheets, towels or any other items to allow employees to sit in a normal posture fully in the shade without having to be in physical contact with each other or the bare ground. However, chairs, benches, etc. are not required for acceptable sources of shade such as trees.
- Shade structures are opened and placed as close as practical to the workers, when the temperature equals or exceeds 80°F. When the temperature is below 80°F, the shade structures will be brought to the site, but will be opened and set in place upon worker(s) request. Note: The interior of a vehicle may not be used to provide shade unless the vehicle is air-conditioned and the air conditioner is on.
- Point out the daily location of the shade structures to the workers as well as allow and encourage employees to take a cool-down rest in the shade, when they feel the need to do so to protect themselves from overheating.
- Ensure shade structures are relocated to follow along with the employee work groups and double-check they are as close as practical to the employees, so that access to shade is provided at all times. In situations where trees or other vegetation are used to provide shade (such as in orchards), the supervisor will evaluate the thickness and shape of the shaded area (given the changing angles of the sun during the entire shift), before assuming that sufficient shadow is being cast to protect employees.
- For non-agricultural employers, in situations where it is not safe or feasible to provide shade, steps are taken to provide shade upon request or other alternative cooling measures with equivalent protection.

Exceptions:

- Where the employer can demonstrate that it is infeasible or unsafe to have a shade structure, or otherwise to have shade present on a continuous basis, the employer may utilize alternative procedures for providing access to shade if the alternative procedures provide equivalent protection.

- Except for employers in the agricultural industry, cooling measures other than shade (e.g., use of misting machines) may be provided in lieu of shade if the employer can demonstrate that these measures are at least as effective as shade in allowing employees to cool.

Attachment E: Work Planning and Site Checklist
Required when temperatures are expected to exceed 80°F.

Department/Group/Project:_____

Supervisor Name and Phone Number:_____

Worksite Location (specific enough for emergency response, use landmarks if needed):

_____

_____

_____

Expected Temperature: _____

Employees Covered (use back as needed): _____

Checklist Completed by: _____Date:_____

Drinking Water Availability At least one quart (4 cups) required per employee per hour for the entire shift, i.e. an 8 hour shift requires 2 gallons per employee ☐ Plumbed water ☐ Water cooler provided ☐ Bottled water provided ☐ Other, describe below:
How will employees be provided access to sufficient drinking water? For backcountry trips or other work in remote locations describe expected natural water sources and treatment methods (e.g. filtration, boiling, chemical disinfection).
Shade May be provided by any natural or artificial means that does not expose employees to unsafe or unhealthy conditions. Shade is not considered adequate when heat in the area does not allow the body to cool (e.g. sitting in a hot car). ☐ Building structures ☐ Trees ☐ Temporary Canopy/Tarp ☐ Vehicle with A/C ☐ Other, describe below:
How will employees be provided access to adequate shade?
Emergency Medical Procedures All employees must be able to provide clear and precise directions to the work site ☐ Cell phone service available ☐ If no cell service, describe emergency plan below:
What are the procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider? Where is the nearest phone? (use back as needed)
For remote locations, list employees on site trained in First Aid and verify that a field safety plan in place and available:
High Heat Procedures - Required when temperatures expected to exceed 95° F If possible limit strenuous tasks to morning or late afternoon hours.   Rest breaks in shade must be provided at least 10 minutes every 2 hours (or more if needed). Effective means of communication, observation and monitoring for sign of heat illness is required at all times. **Pre-shift meeting required.** ☐ Direct supervision ☐ Buddy system ☐ Reliable cell or radio contact ☐ Other, describe below:
List names of any new employees working in heat for less than 14 days that must be supervised at all times:

First Aid Reference and Emergency Response - Signs and Symptoms of Heat Illness

Signs & Symptoms	Treatment	Response Action:
HEAT EXHAUSTION • Dizziness, headache • Rapid heart rate • Pale, cool, clammy or flushed skin • Nausea and/or vomiting • Fatigue, thirst, muscle cramps	1. Stop all exertion. 2. Move to a cool shaded place. 3. Hydrate with cool water.	The most common type of heat illness. Initiate treatment. If no improvement, call 911 and seek medical help. Do not return to work in the sun. Heat exhaustion can progress to heat stroke.
HEAT STROKE • Disoriented, irritable, combative, unconscious • Hallucinations, seizures, poor balance • Rapid heart rate • Hot, dry and red skin (possibly moist and pale) • Fever, body temperature above 104 °F	1. Move (gently) to a cooler spot in shade. 2. Loosen clothing and spray exposed skin with water and fan. 3. Cool by placing ice or cold packs along neck, chest, armpits and groin. 4. Do not place ice directly on skin.	**Call 911 or seek medical help immediately.** **Heat stroke is a life threatening medical emergency. A victim can die within minutes if not properly treated. Efforts to reduce body temperature must begin immediately!**

Other Notes
(Attach other documents, maps, etc. as needed)

Related Resources

Emergency Medical Response: 911
Campus Police Emergency Number: 951-827-5222
Weather Forecasts: http://www.wunderground.com/ or http://www.weather.gov/
Office of Environment, Health & Safety: http://ehs.ucr.edu/ or 951-827-5528
UC Riverside Heat Illness Prevention Fact Sheet: http://www.ehs.ucr.edu/resources/heatsafety.pdf
Cal/OSHA Heat Illness Information and Regulations: https://www.dir.ca.gov/dosh/heatillnessinfo.html

Attachment F: Remote Location Emergency Response Information

Work Location: _____

(include map for remote locations)

Directions to the Work Location:

_____

_____

_____

Nearest Medical Care facility:

Name: _____

Address: _____

Phone: _____

Directions to Medical Care facility:

_____

_____

_____   _____

Indicate means of communication:

_____

Phone Number (if applicable):

_____

Means of transport to nearest Medical Care location:

_____

Attachment G: Emergency Response Guidance

Recommended Equipment:

First aid kit, radios, cell phones, BlackBerrys, or other forms of communication; flashlights, reflective vests

Written Response Procedures:

Supervisors must have a written response procedure developed for each location. This must include having a map along with clear and precise directions (such as streets or road names, distinguishing features and distances to major roads) at a remote, off-campus site, to avoid a delay of emergency medical services.

Prior to starting work, supervisors must;

- During a heat wave or hot temperatures, remind and encourage workers to immediately report to their supervisor any signs or symptoms they are experiencing.
- Ensure a qualified, appropriately trained and equipped person will be available at the site, to render first aid if necessary.
- Determine if a language barrier is present at the site and take steps to ensure emergency medical services can be immediately called in the event of an emergency.
- Carry cell phones or other means of communication, to ensure that emergency medical services can be called and check that these are functional at the worksite prior to each shift

Emergency Response:

- Take immediate steps to keep the stricken employee cool and comfortable once emergency service responders have been called (to reduce the progression to more serious illness).
- At remote locations such as rural farms, lots or undeveloped areas, designate an employee or employees to physically go to the nearest road or highway where emergency responders can see them.
- If daylight is diminished, the designated employee(s) shall be given reflective vest or flashlights in order to direct emergency personnel to the location of the worksite, which may not be visible from the road or highway.

Attachment H: Heat Illness Prevention Program Compliance Checklist

Department/Unit:_____ **Supervisor:**_____

Completed by:_____ **Date:**_____

Heat Illness Program			
	Yes	**No**	**Comments**
Do employees perform work outdoors, or in indoor areas where Heat Illness is likely to occur?	☐	☐	If **no**, Heat Illness Protection Program not required.
Have employees reviewed UCR Heat Illness Program manual?	☐	☐	If **no**, direct employees to review UCR Heat Illness Program Manual.
Training			
Have employees received documented Heat Illness Training?	☐	☐	If **no**, ensure employees receive Heat Illness training
Have the supervisors received documented Supervisor Heat Illness training?	☐	☐	If **no**, ensure supervisors receive documented Supervisor Heat Illness training (available through EHS).
Heat Illness Prevention Measures			
Have employees been given time to acclimate to their environment? (Gradually exposed to regular working conditions for a least four to fourteen days for at least two hours per day in the heat.)	☐	☐	If **no**, closely monitor employee(s) for signs and symptoms of heat illness and allow employee(s) to acclimate before performing strenuous work in heat.
Do employees have access to shade? (Shade means the blockage of direct sunlight. Shade is not considered adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool (e.g. sitting in a hot car). Shade may be provided by any natural or artificial means that does not expose employees to unsafe or unhealthy conditions.)	☐	☐	If **no**, develop and implement procedures for providing shade to employees.
Are employees provided or do they have access to sufficient drinking water? (At least one quart per employee per hour for drinking for the entire shift.)	☐	☐	If **no**, develop and implement procedures for providing access to sufficient drinking water.
Are employees allowed and encouraged to rest in the shade for a period of no less than five minutes at a time when they feel the need to do so to protect themselves from overheating?	☐	☐	If **no**, allow and encourage employees to take breaks in a cool, shaded area as needed to allow the body to cool and dissipate internal heat load.
Do supervisors monitor weather conditions and when possible schedule outdoor work during cooler times of the day to reduce the risk of heat illness?	☐	☐	If **no**, Supervisors are responsible for monitoring weather conditions and scheduling work appropriately.
Are new employees closely monitored by a supervisor or designee for the first 14 days of the employee's employment by the employer when temperatures exceed 80º F	☐	☐	If **no**, develop procedures to closely monitor employees for the first 14 of employment when temperatures exceed 80º F.

Emergency Medical Procedures			
	Yes	**No**	**Comments**
Are there procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider?	☐	☐	If **no**, develop procedures. **Special procedures may be necessary for remote/off-site workers.**
Are there procedures for ensuring that, in the event of an emergency, clear and precise directions to the work site can and will be provided as needed to emergency responders? These procedures shall include designating a person to be available to ensure that emergency procedures are invoked when appropriate.	☐	☐	If **no**, develop procedures. **Special procedures may be necessary for remote/off-site workers.**
Have employees been trained on these procedures?	☐	☐	If **no,** train employees on Emergency Medical Procedures.
High Heat Procedures (only required for agricultural, construction, landscaping and transportation workers when temperatures exceed 95º F)			
Do employees perform agricultural work, construction, landscaping, or transportation and loading/unloading of heavy goods?	☐	☐	If **yes**, High Heat Procedures must be implemented when temperatures exceed 95º F. (See High Heat Procedures section below.) If **no**, High Heat Procedures not required to be implemented but are recommended to be used as needed to ensure employees' safety.
Are effective means of communication by voice, observation, or electronic means maintained so that employees at the work site can contact a supervisor when necessary in place when temperatures exceed 95º F? (An electronic device, such as a cell phone or text messaging device, may be used for this purpose only if reception in the area is reliable.)	☐	☐	If **no**, develop procedures to ensure effective means of communication are in place when temperatures exceed 95º F.
Are new employees closely monitored by a supervisor or designee for the first 14 days of the employee's employment by the employer when temperatures exceed 95º F?	☐	☐	If **no**, develop procedures to closely monitor employees for the first 14 of employment when temperatures exceed 95º F.
Are employees observed for alertness and signs or symptoms of heat illness when temperatures exceed 95º F?	☐	☐	If **no**, observe employees for signs and symptoms of heat illness when temperatures exceed 95º F.
Are there Pre-shift meetings before the commencement of work to review the high heat procedures, encourage employees to drink plenty of water, and remind employees of their right to take a cool-down rest when necessary	☐	☐	If **no**, schedule pre-shift meetings when temperatures exceed 95º F.
Notes			