



# Annual Safety Seminar

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## Alphabet Soup

EH&S, IIPP, EAP, SOP, LMS, JSA , HazCom, PI, UCOP

University of California, Davis

# Safety Seminar Topics

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- Injury and Illness Prevention Plan (IIPP) **Department**
- Training **UCOP**
- Hazard Communication (HazCom) **PI/Supervisor with EH&S**
- Emergency Action Plan (EAP) **Department**
- Ergonomics **PI/Supervisor and Safety Services**
- **Safety Services Resources - <http://safetyervices.ucdavis.edu/>**



"It doesn't have a happy ending."

# Elements of the IIPP

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# Injury and Illness Prevention Plan (IIPP)

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- Management commitment/assignment of responsibilities
- Safety communications system with employees
- System for assuring employee compliance with safe work practices
- Scheduled inspections/evaluation system
- Procedures for correcting unsafe/unhealthy conditions
- Safety and health training and instruction
- Recordkeeping and documentation
- Accident Investigation





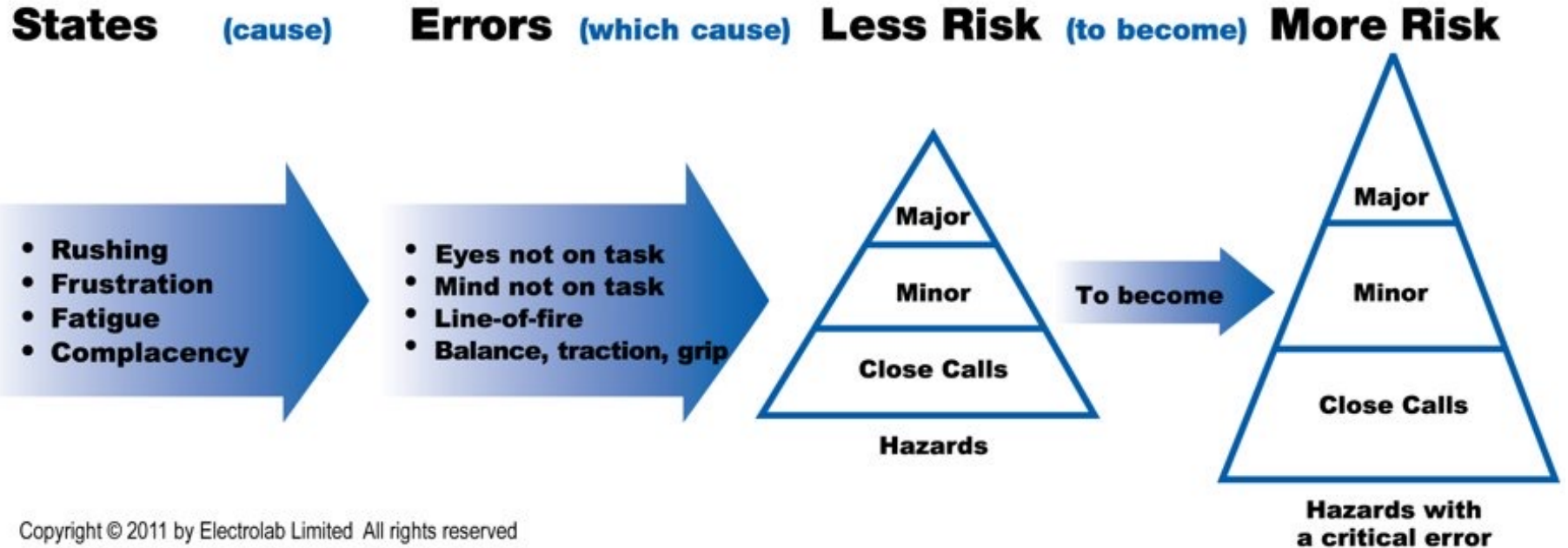
# Most Likely Injuries - Training

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1. Transportation injuries – LMS Safe Driver Series
2. Slips, trips, and falls – LMS Fall Protection, Ladder Safety, and Sprains and Strains
3. Violence by people and animals - LMS Violence Prevention
4. Hazardous equipment – JSA and HazCom
5. Hazardous environment – JSA and HazCom
6. Fires and explosions – LMS Emergency Response

# Contributors to Accidents

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# BASIC SAFETY PRINCIPLES



# What are some of the hazards we encounter in offices?

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- Ergonomic issues;
- Fire & evacuation;
- Electrical cords & equipment;
- Heat-generating sources;
- Hand & powered tools & equipment;
- Office machines (copiers, paper cutters, shredders, jammed machines);
- Office chemicals;
- Slips, trips, falls;
- Housekeeping;
- Furniture/layout;
- Motor vehicle accidents.

# Job Safety Analysis

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- Job Safety Analysis (JSA) identifies and evaluates employee work functions, potential health or injury hazards, and specifies appropriate safe practices, personal protective equipment, and tools/equipment. JSA's can be completed for worksites, an individual employee's job description, or a class of employees' job description.



# Job Safety Analysis

EMPLOYEE: <b>ENTER EMPLOYEE NAME</b>	<b>JOB SAFETY ANALYSIS</b>	DEPT: EH&S	LOCATION All	JOB TYPE DSA
JOB FUNCTION	POTENTIAL HEALTH OR INJURY HAZARDS	SAFE PRACTICE, APPAREL, OR EQUIPMENT		
Handling and moving heavy items and equipment.	Ergonomic hazards including heavy lifting, repetitive motions, awkward motions, crushing or pinching injuries etc.	Get help with all loads that cannot be safely lifted by one person. Use mechanical means to lift and move heavy items, push carts and dolly rather than pull, attend back safety class, employ proper lifting techniques at all times. Set up work operations as ergonomically safe as practical. Wear proper hand and foot protection to protect against crushing or pinching injuries.		
Operation of Motor vehicles	Motor vehicle accidents involving personal injury, or property damage	All drivers of UCD vehicles (greater than 10% of your job) should take the online Safe Driver Awareness Course offered by the UC Learning Center and possess a valid California drivers license. Hazardous materials may not be transported in personally owned vehicles.		
General office work.	Backstrain, eyestrain, repetitive motion injury. Physical injuries due to slips, trips and falls, and falling objects. Electrical hazards. Physical injuries due to fires, earthquakes, bomb threats and workplace violence.	Ensure that workstations are ergonomically correct. Keep floors clear of debris and liquid spills. Keep furniture, boxes, etc. from blocking doorways, halls and walking space. Do not stand on chairs of any kind, use proper foot stools or ladders. Do not store heavy objects overhead. Do not topload filing cabinets, fill bottom to top. Do not open more than one file drawer at a time. Brace tall bookcases and file cabinets to walls. Provide one-inch lip on shelves. Do not use extension cords in lieu of permanent wiring. Ensure that high wattage appliances do not overload circuits. Use GFI's in receptacles in potentially wet areas. Replace frayed or damaged electrical cords. Ensure that electrical cords are not damaged by being wedged against furniture or pinched in doors. Attend emergency action and fire prevention plan training including emergency escape drills. Attend Workplace Violence training offered by UC Davis Police Department.		



# Job Safety Analysis

1	An Injury or Illness Investigation	Train employees on reporting injuries or illnesses as soon as possible, employees & supervisors on how to access and complete the online injury reporting form, supervisors to interview employees and document injury details plus establish effective corrective actions (i.e. Review SOPs, retraining, new tools or equipment, ergonomics reviews, etc.)	<a href="#">3203(a)(7)(F)</a>	Y	Initial	Supervisors/Accident Investigators	<a href="#">Employees First Report of Injury or Illness</a>	
2	Accident Prevention Signs and Tags	Post signs and tags for Danger, Caution or Warning or obtain any labels you need made from EH&S to increase safety awareness around equipment	<a href="#">3241(d)(5)</a>	Y	Initial	Impacted Employees	<a href="#">Signs and Tags</a>	
23	Emergency Action Plan	A written EAP program on file plus evacuation routes. Assembly areas established, posted and employees trained	<a href="#">3220(e)</a>	Y	Initial and with Annual Plan Update	Impacted Employees	<a href="#">Emergency Action Plan</a>	
28	Fire Extinguisher & Fire Fighting Equipment	An educational program or instructor led training to familiarize employees with the general principles of fire extinguisher use and the hazards involved with incipient stage fire fighting when first employed and annually thereafter.	<a href="#">6151(g)(1)(4-2)</a>	Y	Initial Annual	Assigned Employees	<a href="#">Requesting a fire extinguisher or training</a>	
37	Hazard Communication	Maintain an inventory of hazardous chemicals, insure all containers are labeled including secondary containers, keep an inventory of SDS up-to-date and employee training on how to read an SDS, the hazards and PPE required when working around	<a href="#">5134(b)(1)</a>	Y	Initial New chemicals or processes	Exposed Employees	<a href="#">Hazard Communication</a>	<a href="#">See Hazardous Chemical Communication Program Policy &amp; Procedure 230-27</a>
43	Injury & Illness Prevention	Initially for new employees, an annual update and reminder for all	<a href="#">3203(a)(7)</a>	Y	Initial and Annual	All Employees	<a href="#">IIPP template</a>	<a href="#">See Policy &amp; Procedure 230-15 Safety Management</a>
44	Job Hazard(s) JSA or JHA	Conduct a review of equipment used and tasks performed and list	<a href="#">3203(a)(7)</a>	Y	Before Job Assignment	All Employees	<a href="#">Job Safety Analysis Training</a>	
45	Ladder Safety	Employee Training. Before an employee uses a ladder, the employee shall be provided training in the safe use of ladders. Supervisors of employees who routinely use ladders must also have ladder safety training. The training may be provided as part of the employer's Injury and Illness Prevention Program required by Section 3203and must address the Cal/OSHA 7 specific topics (see link).	<a href="#">3276(f)</a>	Y	Before ladder use	All employees using portable ladders	<a href="#">Portable Ladder Safety</a>	
49	Material Handling and Storage	Purchasing, using and training employees how to use the correct material handling equipment for your department's needs. Hand truck, lightweight collapsible (folding) hand carts, cylinder trucks, trucks with brakes, platform carts, table carts, stair climbing hand trucks, using ratchets straps to fasten loads, pallet jack safety and forklift (plus attachments) safety plus training requirements before use. Lightening the load, getting assistance, proper body mechanics moving a load and checking the transport path before moving materials (aisle clear, doors open, no slippery surfaces, blind corners, high traffic areas).	<a href="#">Injury prevention and best management practices</a>	Y	Initial and Annual	Employees handling heavier loads (loading docks, materials receiving and transport)	<a href="#">Material Handling</a>	
50	Medical & Exposure Records - Access	Employees can request access to medical exposure records and a response is required <15 days after the request. New employees when hired and at least annually must be informed of the existence, location, and availability these records and who is responsible and maintaining plus providing record access, each employee's rights of access to these records, and copies of this section/appendices on file and available to employees.	<a href="#">3204(g)(1)</a>	Y	Initial and Annual	Affected Employees	<a href="#">Access to Medical and Exposure Records</a>	
	Office Safety	Office hazard awareness and prevention, housekeeping, slips, trips and falls prevention, safe us file drawers and storage cabinets, basic electrical safety and panel access, back & lifting safety, step stools & ladders, material storage, Repetitive Motion Injuries an proper PC and laptop set-up, transporting material	<a href="#">3273</a>	Y	Initial and Annual	Office workers		



## Revised - 10/2013

# Site Specific Training

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(print name, trainee)
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(date)

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(print name, trainer)
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(signature, trainee)

(signature, trainer)

Initial	Topic	Action
<b>EMERGENCY PROCEDURES</b>		
	<b>Fire Alarm Pull Station:</b>	Show location(s) and proper activation.
	<b>Eye Wash / Safety Showers:</b>	Show location(s) and proper operation.
	<b>Chemical Spill Procedure</b>	Show location of spill kit(s), SafetyNets <a href="#">#13</a> and <a href="#">#127</a> (if applicable), and describe procedures.
	<b>First Aid Kits:</b>	Location(s) and description of contents.
	<b>Phone:</b>	Location(s), detail dialing instructions, '911' dialing instructions, bomb threat card.
	<b>Emergency Response Guide:</b>	Location(s) of flipchart guide, discuss scenario actions
	<b>Emergency Action Plan:</b>	Review Emergency Action Plan. Demonstrate both paths to Emergency Assembly Area. Review evacuation procedures for disabled employees if applicable.
	<b>Warn Me:</b>	Enroll in UC Davis <a href="#">Warn Me</a> emergency alert system, recommend registering cellular phone number.
<b>ENGINEERING CONTROLS</b>		
	<b>Chemical Fume Hood(s):</b>	Demonstration of proper use, instruction on adjustable controls, flow sensor function, and training requirements.
	<b>Biological Safety Cabinet(s):</b>	Demonstration of proper use, instruction on adjustable controls and training requirements.

# LMS Safety Training Classes (Online and Instructor Led)

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- Injury Prevention
- Emergency Preparedness
- General and Equipment Safety
- Ergonomics
- Lab Safety for Support Personnel

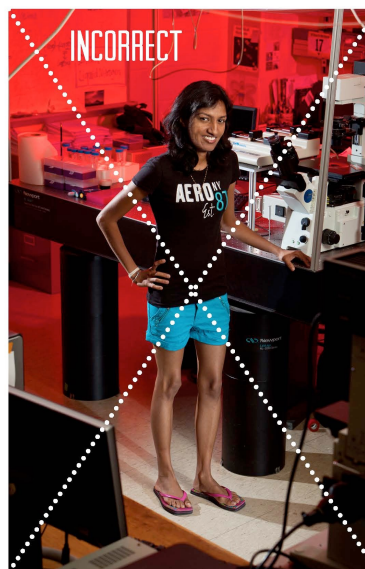


# Personal Safety

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## Lab Safety for Support Personnel

NO PANTS, NO SHOES  
**NO SCIENCE**



FOR MORE INFORMATION CONTACT ENVIRONMENTAL HEALTH AND SAFETY AT (806) 742-3876  
[WWW.EHS.TTU.EDU](http://WWW.EHS.TTU.EDU) | [WWW.SAFETY.TTU.EDU](http://WWW.SAFETY.TTU.EDU)

SAFETY@TTU

# Managing LMS Safety Training

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- Supervisors, administrators, and department safety coordinators can assign training
- You can follow up on training
- You can see what training is past due
- Safety inspectors can see what training individuals have completed and when

# EH&S Safety Nets

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- Personal and Workplace Safety (65)
- Fire Prevention (53)
- Occupational Health (46)
- Emergency Preparedness (16)
- Campus Environment (15)
- Risk Management Services (2)
- Food Safety (1)



# Hazard Communication

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- California Occupational Safety and Health Administration (Cal/OSHA) requires employers to inform employees about hazards associated with hazardous chemicals that are present in the workplace
- Industrial (Non-Laboratories) and manufacturing or commercial laboratories are subject to requirements of Title 8, CCR section [5194](#), “Hazard Communication” and are covered under the Hazard Communication Program requirements.

# Hazard Communication

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- The UC Davis Hazard Communication Program (HazCom) applies to industrial workplaces, manufacturing or commercial laboratories and activities such as animal husbandry areas, shops, custodial, craft centers, theaters and studios. The program requires employees to:
- Maintain a hazardous chemical inventory in the UC Davis [Chemical Inventory System](#)
- Maintain and have access to safety data sheets (formerly called material safety data sheets)
- Understand hazards associated with chemicals they work with through labeling and other forms of warning
- Receive [safety training](#) and other information to minimize the risks associated with the hazardous chemicals used in the work area
- Develop, implement and maintain a written HazCom program (follow [General HazCom Program](#) and complete [Department-Specific HazCom Program Summary](#)).



# SDS Information

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- Identity of the chemical
- Hazardous nature of chemical
- Physical characteristic (e.g., boiling point)
- Fire and explosion information
- Reactivity data
- Health hazard data (e.g., health effects, symptoms)
- Personal protective equipment needed
- How to handle leaks, spills and disposal
- Special precautions

# *The Globally Harmonized System of Classification and Labeling of Chemicals* (GHS)

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- Signal word – either **DANGER** or **WARNING**
- Precautionary statement indicating product handling to minimize risks to the user
- H200 Physical Hazard
- H300 Health Hazard
- H400 Environmental Hazard
- The lower the number within the category the higher the hazard  
i.e. H300 is more hazardous than H301 or H304

# Hazard Symbols



Old Hazard Symbols



New Hazard Symbols

# SDS Information – H223, H280, H304, H336



## Safety Data Sheet California CARB Compliant

### 1 - Identification

**Product Name:** WD-40 Multi-Use Product Aerosol

**Product Use:** Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion

**Restrictions on Use:** None identified

**SDS Date Of Preparation:** March 5, 2019

**Manufacturer:** WD-40 Company

**Address:** 9715 Businesspark Avenue  
San Diego, California, USA  
92131

**Telephone:**

**Emergency:** 1-888-324-7596

**Information:** 1-888-324-7596

**Chemical Spills:** 1-800-424-9300 (Chemtrec)  
1-703-527-3887 (International Calls)

### 2 – Hazards Identification

**Hazcom 2012/GHS Classification:**

Flammable Aerosol Category 1

Gas Under Pressure: Compressed Gas

Aspiration Toxicity Category 1

Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)

Note: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

**Label Elements:**



**DANGER!**

Extremely Flammable Aerosol.

Contains gas under pressure; may explode if heated.

May be fatal if swallowed and enters airways.

May cause drowsiness or dizziness.

**Prevention**

Keep away from heat, sparks, open flames, hot surfaces. – No smoking.

Do not spray on an open flame or other ignition source.

# Standard Operating Procedure

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Cal/OSHA requires standard operating procedures (SOPs) be established for work with hazardous chemicals.

SOPs document the specific procedures for the safe handling, storage and disposal of hazardous chemicals.

# Emergency Preparedness

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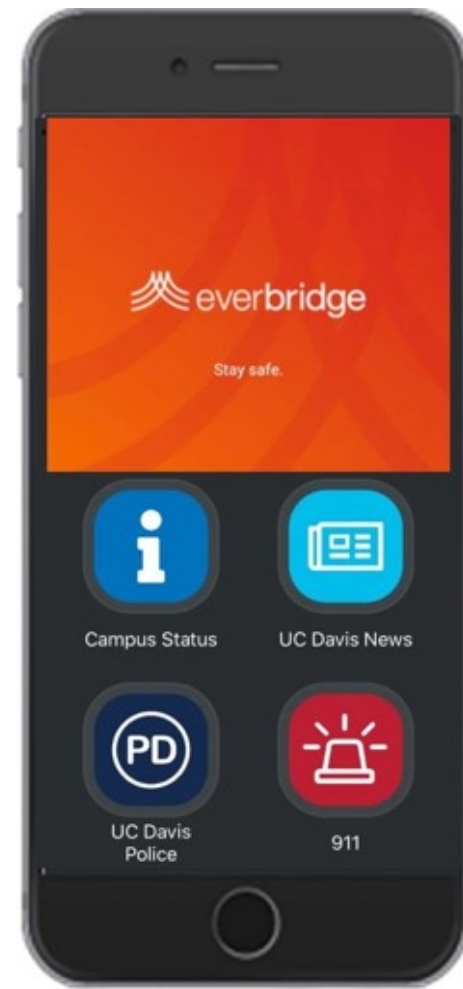
# Emergency notification

## Campus emergency notification



## **UCD WarnMe alerts**

## **Everbridge- personal safety mobile app**





# Emergency Action Plan (EAP)

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The program must be in writing and include the following elements:

- Emergency escape procedures and emergency escape route assignments
- Procedures to account for all employees after an emergency evacuation
- The preferred means of reporting fires and other emergencies
- Names or regular job titles of persons or departments who can be contacted for further information or explanation of duties under the plan
- A system to notify employees of an emergency
- Procedures for employees who remain to complete critical operations before they evacuate
- Rescue and medical duties for those employees who are to perform them
- Training for all employees on the EAP
- The written plan must be kept in the workplace and made available for employee review



# Emergency Action Plan

## Know the locations of:

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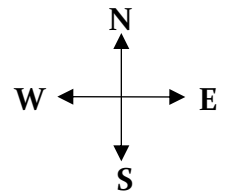
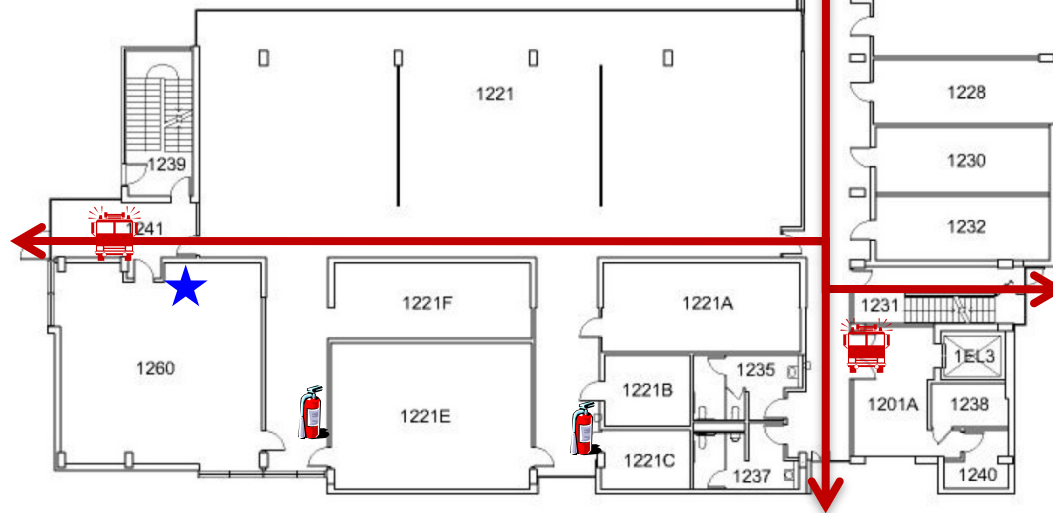
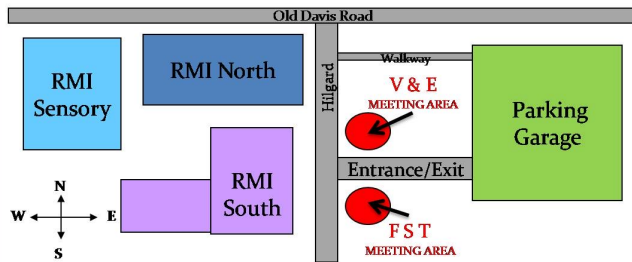
- | All exits for your workplace and the building
- | Alarm pull boxes and fire extinguishers
- | Nearest phone
- | First-aid kits

If you will need assistance during evacuation, please contact me in advance!



# RMI South First Floor

## EMERGENCY EVACUATION MAP MEETING PLACES



Fire Extinguisher



Fire Alarm Box



You Are Here

# RMI North First Floor

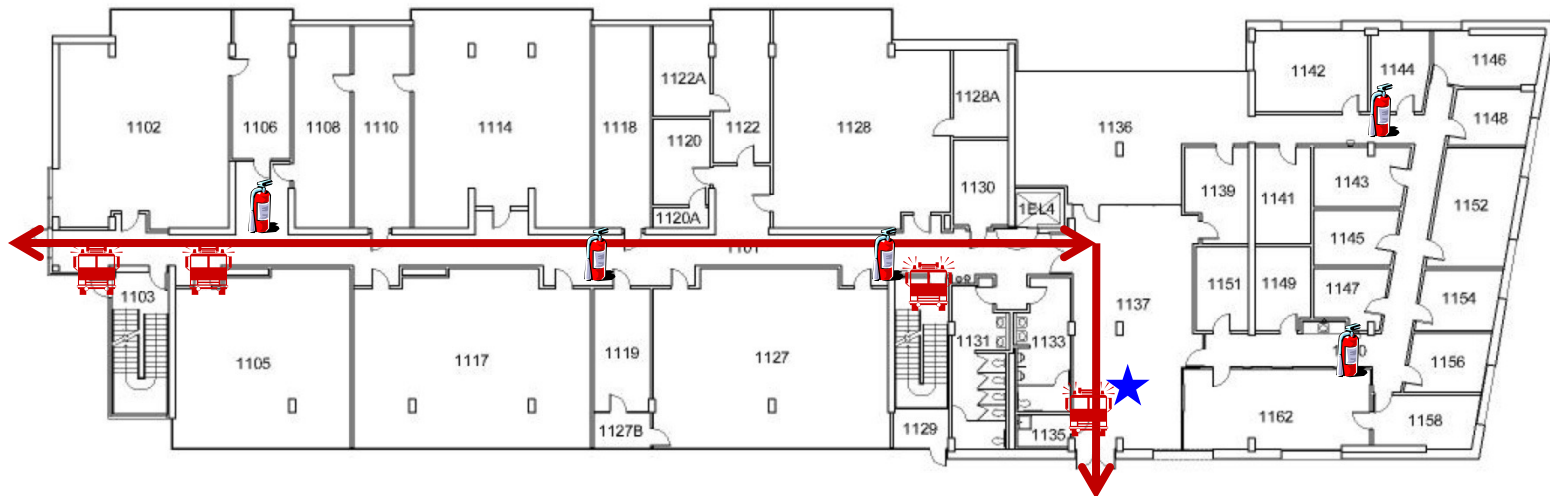
## Emergency Contacts:

Vanessa Lieberman 752-2826

Jennifer Radke 752-1947

Linda Harris

David Block



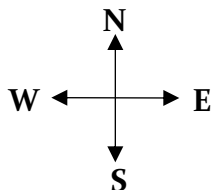
Fire Extinguisher



Fire Alarm Box

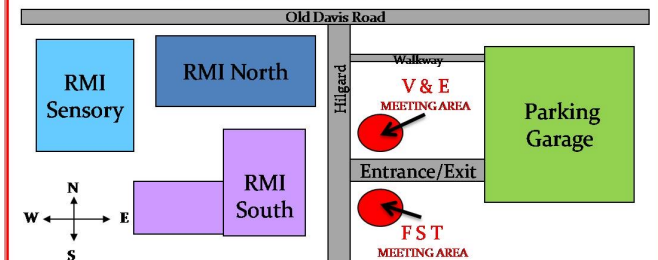


You Are Here



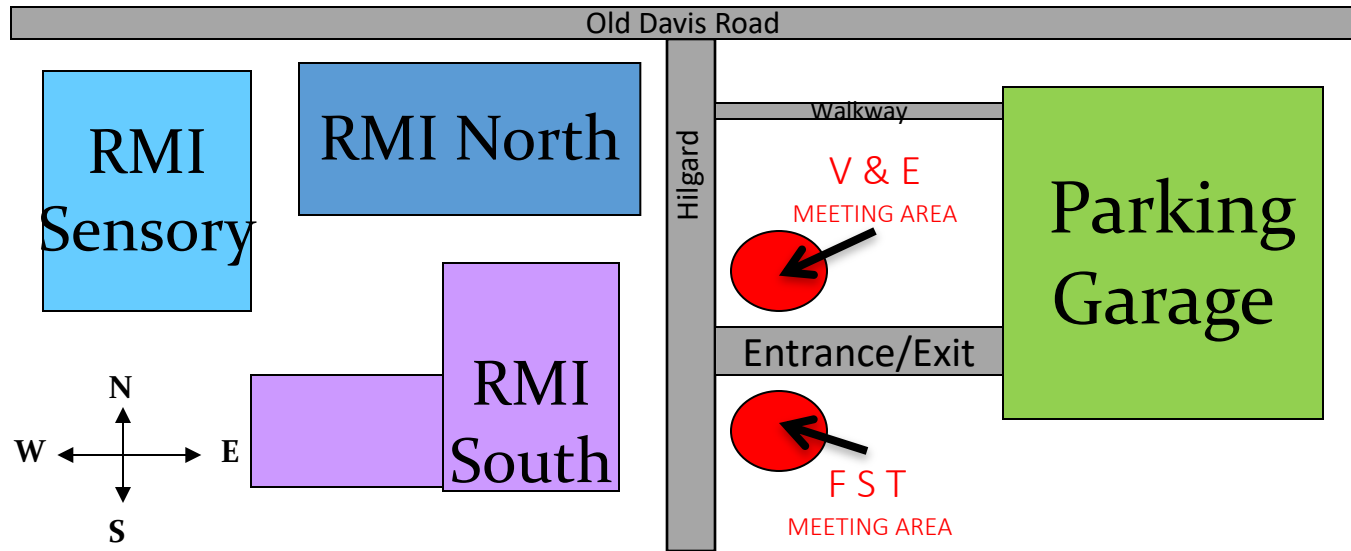
## EMERGENCY EVACUATION MAP

### MEETING PLACES



# EMERGENCY EVACUATION MAP

## MEETING PLACES



# Procedures in Case of Fire

- If fire is small you may attempt to neutralize the threat without endangering yourself
- If you are unsure - Leave the area, being sure others are out
- CLOSE THE DOOR!
- ACTIVATE THE NEAREST BUILDING FIRE ALARM
  - Once manual pull alarm is activated, alarm will emit audible and visual (strobing lights) signals to warn occupants of evacuation
- DIAL 911 (or 530-752-1230)
- STAY AWAY FROM AREA AND CLOSE ALL DOORS!
  - Doors in RMI complex are fire rated and will help prevent the spread of fire to surrounding areas
- Go to agreed meeting place
- Stand by to advise the emergency personnel when they arrive



# Fire extinguishers: Types and how to use

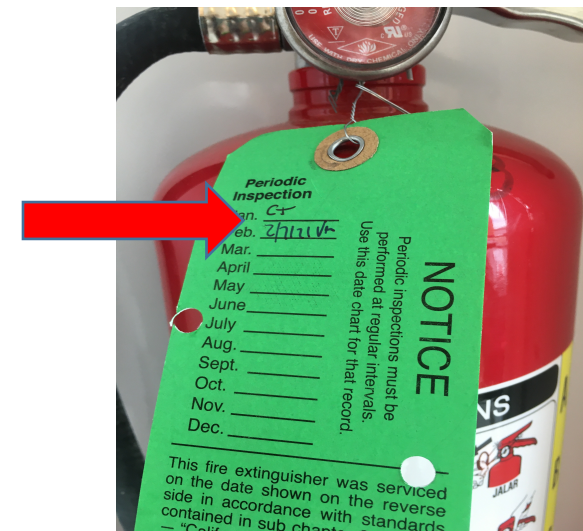
- 5 types
  - Class A: ordinary combustibles wood, paper, trash etc
  - Class B: flammable/combustible liquids
  - Class C: Electrical fires
  - Class D: special metals
  - Class K: Kitchen fires (oil, grease, etc.)
- All buildings in RMI equipped with combo extinguishers (A+B+C)
- Emit a powder that suffocates the fire
- Need to be checked monthly





# How to check fire extinguishers

- Need to be checked monthly
- Make sure needle is within the green range
  - Look at the needle as if you were looking at a meniscus of a liquid
- Put date and initials of person checking on the tag
- If there are issues, contact [fireprevention@ucdavis.edu](mailto:fireprevention@ucdavis.edu)



# How to use a fire extinguisher

## PASS

- **P**: pull the pin (note take care not to squeeze handle)
- **A**: aim at the base of the fire and stand back 5-6 ft
- **S**: squeeze the handle and move carefully closer as powder is being discharged
- **S**: sweep back and forth to cover the range of the fire
- **This should only be done when fire is at the beginning stage.** If flames are large, evacuate. 911 should already have been alerted
- Fire extinguisher will only last **20-30 seconds**



[Fire Extinguisher Training Video-](#)  
[OSHA](#)

# Procedures in Case of Earthquake

- Get under a desk, table, archway, etc. during the shaking
- Leave the building after the shaking is over
- If outside during shaking, stay clear of buildings, trees, etc.
- DIAL 911 (or 530-752-1230) to report any fires, ruptured pipes or downed electric lines
- Assist injured persons in securing medical attention
- Go to agreed meeting place
- Stand by to advise emergency personnel when they arrive

# Active Shooter

- Immediate actions
  - Run
  - Hide
  - Fight
- Seek Help
  - Call 911 and provide as much information as possible:
    - Location, what is happening, description of suspect, your name and number
- Silence your phone:
  - If you cannot speak, turn the sound off with line open so police can hear what is going on
- <https://safetyservices.ucdavis.edu/units/emergency-preparedness/procedures/active-shooter>
- LMS: [Shots Fired](#)

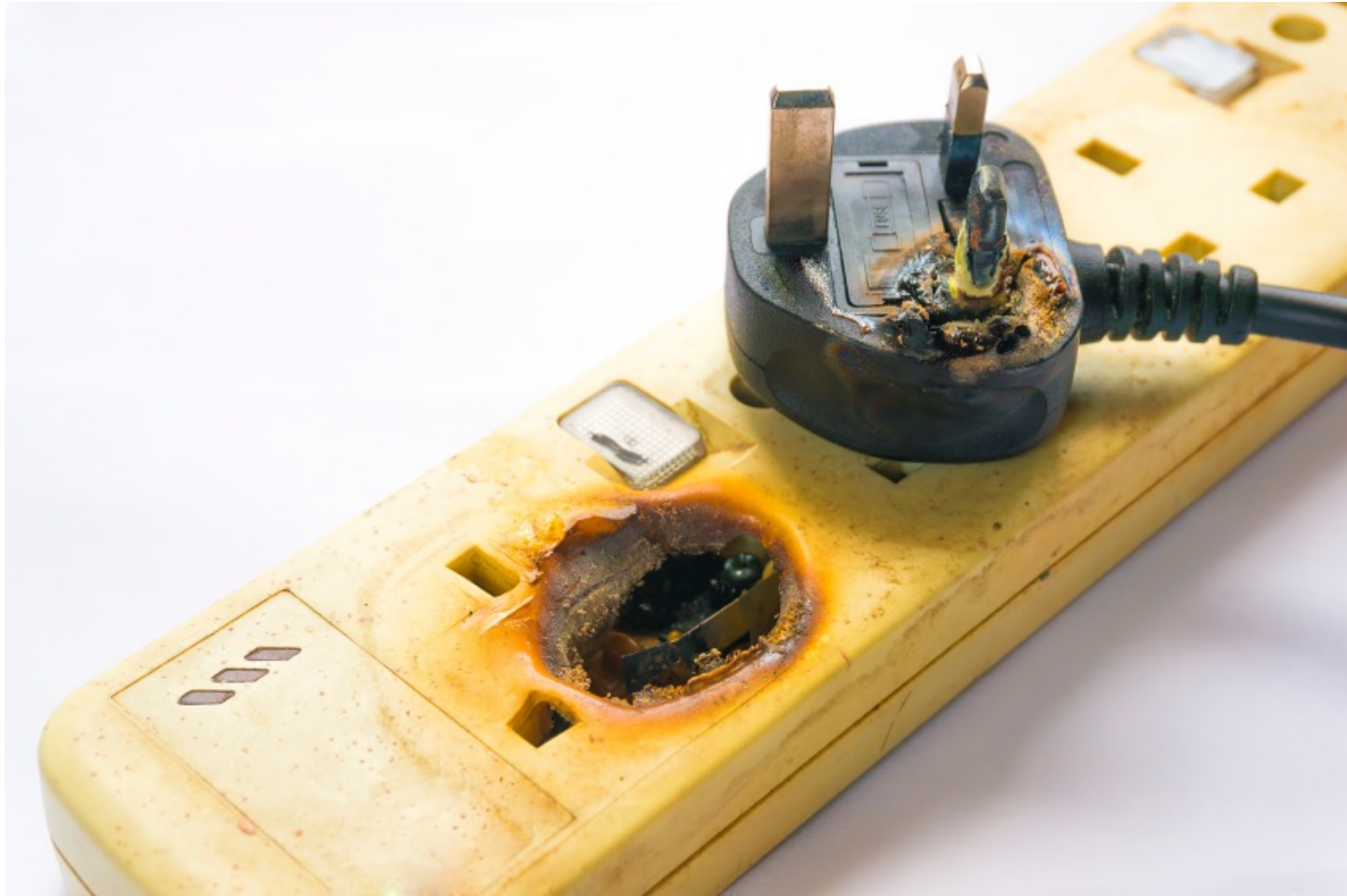
# Reporting Unsafe Conditions

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- There is a form in the IIPP for reporting unsafe conditions
- You can also turn in work orders to Facilities for building issues that are unsafe. For example; loose tiles, poor lighting, leaks, etc.
- You can also report things you consider unsafe to your supervisor or department safety coordinator
- You can report unsafe conditions or a near miss to Safety Services
- You can also report unsafe conditions to Cal-OSHA

# What is a “Near Miss”

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# Report a “Near Miss” to Safety Services

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- **Report an Incident or Concern**
- All faculty members, staff, students and visitors at UC Davis can participate in making the campus a safe place to work, study, and live by identifying health and/or safety hazards or unsafe conditions by informing those responsible for the problem area.
- **Employees are advised that use of this form or other reports of unsafe conditions or practices are protected by law. It would be illegal for the employer to take any action against an employee in reprisal for exercising rights to participate in communications involving safety.**

# Ergonomics

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Copyright 2003 by Randy Glasbergen.  
[www.glasbergen.com](http://www.glasbergen.com)



**“We could try a larger monitor with an ergonomic glare filter...but you’re still going to get headaches if you keep banging your head against the screen.”**

# Ergonomics

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- Ergonomics –(er-ge-na-miks)–n. Greek term for “the laws of work.”
- The science of adapting workstations, tools, equipment and job techniques to be compatible with human anatomy and physiology to reduce the risk of **Musculoskeletal Disorder** injuries due to **Ergonomic Stressors**.
- In other words, “fit the job to the person” rather than the “person to the job.”

# Ergonomic Equipment

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- Workstation
- Chair
- Pointing Device
- Keyboard



# Ergonomic Equipment

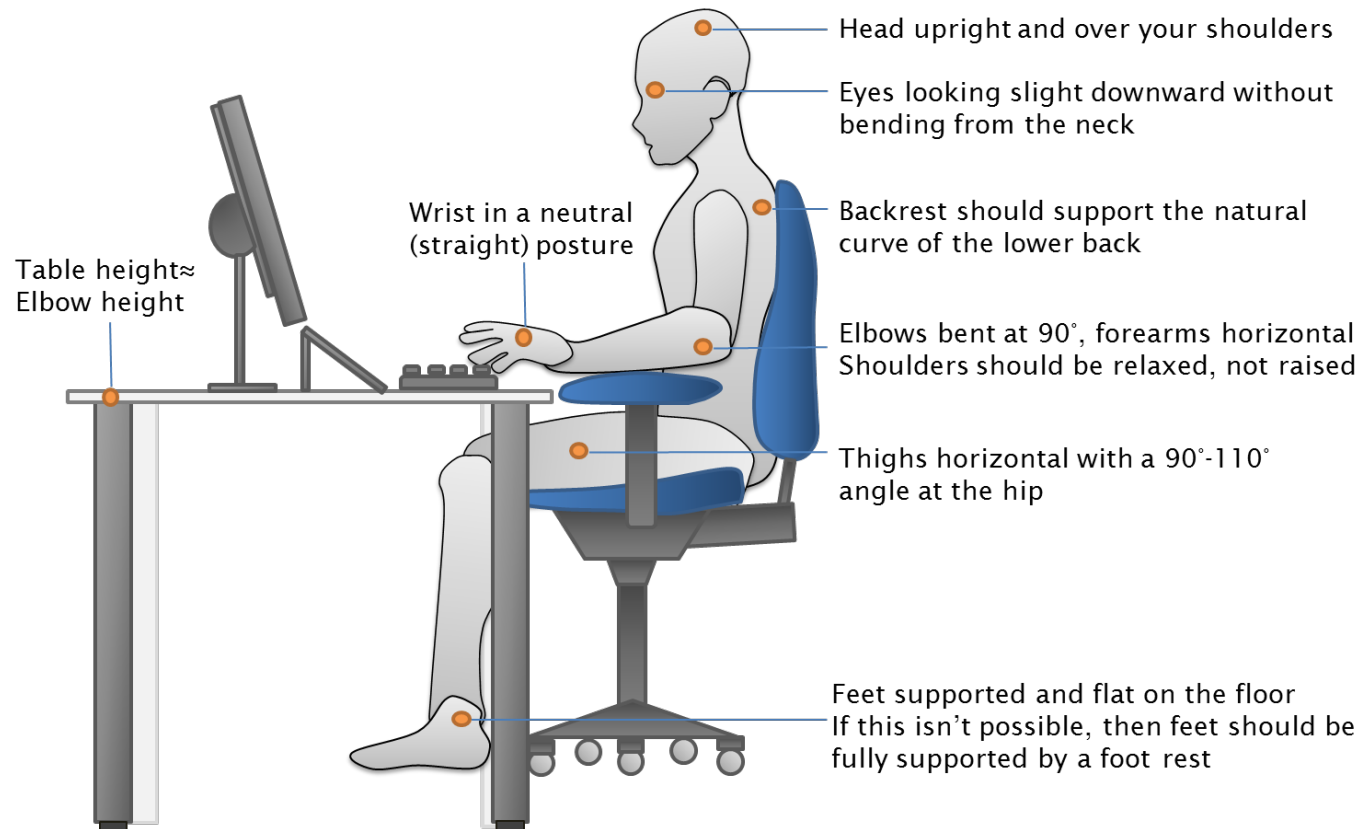
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# Ergonomics - sitting

## WHAT IS GOOD POSTURE?

**UC DAVIS**  
OCCUPATIONAL  
HEALTH SERVICES





# Ergonomics Tips for Telecommuters

Below are some useful Ergonomic tips to maintain healthy working conditions for using your computer while telecommuting.

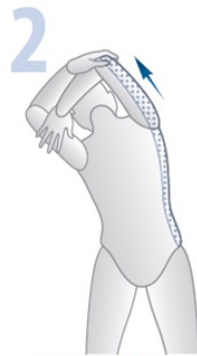
- Safety Services has some tips for setting up [ergonomic work stations while at home](#)
- LMS training course for [Ergonomic Self-Evaluation For Remote Work](#)
- <https://safetyservices.ucdavis.edu/units/occupational-health/ergonomics>

# Ergonomic – stretches

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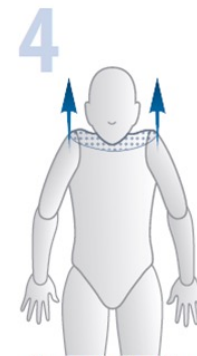
10-20 seconds, two times



8-10 seconds, each side



15-20 seconds



3-5 seconds, three times



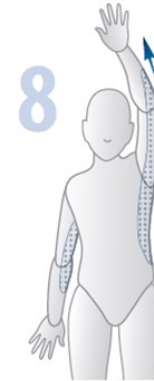
10-12 seconds, each arm



10 seconds



10 seconds



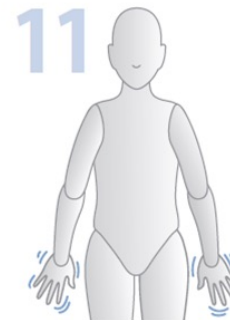
8-10 seconds, each side



8-10 seconds, each side



10-15 seconds, two times



Shake out hands, 8-10 seconds



Vanessa Lieberman  
vmmorales@ucdavis.edu