UC DAVIS

Mechanical and Aerospace Engineering

INJURY AND ILLNESS PREVENTION PROGRAM

In accordance with:

University Policy, UCD Policy & Procedure Manual, Section 290-15 - Safety Management Program,

University Policy, UCOP, Laboratory Safety Training Policy (effective: 31 October 2013), http://policy.ucop.edu/doc/3500598,

and

California Code of Regulations: Title 8, Section 3203 (8 CCR, Section 3203).

Date of last Revision: 24 November 2014

Department of Mechanical and Aerospace Engineering

INJURY AND ILLNESS PREVENTION PROGRAM

2013-14

Summary

The Mechanical and Aerospace Engineering Department (MAE) has facilities in several UC Davis (UCD) buildings: Academic Surge Building, AMRL, ATIRC, Bainer Hall, Bainer Wind Tunnel Building, Ghausi Hall, Kemper Hall, and TB 207. This Injury and Illness Prevention Program (IIPP) covers all facilities assigned to MAE by the College of Engineering. Individual laboratories must have their own Laboratory Safety Manual including a Chemical Hygiene Plan and/or Standard Operating Procedures (SOP) where appropriate.

Completion of this form indicates that it is the policy of the employer to fully comply with Labor Code §6401.7(SB 198) and General Industry Safety Order §3203, Injury and Illness Prevention Program and is in accordance with University Policy (UCD PPM Section 290-15: Safety Management Program and UCOP Laboratory Safety Training Policy)

DEPARTMENT INFORMATION:

Department Name: Mechanical and Aerospace Engineering

Department Chairperson: Prof. C. P. van Dam

Main Office Address: 2132 Bainer Hall, University of California at Davis, Davis, CA 95616

Telephone Number: (530) 752-0580

PERSONS WITH RESPONSIBILITY FOR IMPLEMENTING THE INJURY AND ILLNESS PREVENTION PROGRAM:

Name (Chair): Prof. C. P. van Dam, Chair of MAE

Name (of Department Safety Contact -DSC): Loan-anh Nguyen

THE DEPARTMENT'S SYSTEM FOR IDENTIFYING, EVALUATING, AND PREVENTING OCCUPATIONAL SAFETY AND HEALTH HAZARDS INCLUDES THE FOLLOWING:

- Review of applicable Campus and System Safety Policies and other Safety Orders that apply to the operation.
- Investigations of all accidents, injuries, illnesses, and unusual events that have occurred at this location.
- Periodic and scheduled inspections of general work areas and specific workstations.
- Evaluation of information provided by Workers.

REVIEW AND APPROVAL:

This Injury and Illness Prevention Program is hereby approved. – **SIGNED COPY KEPT IN 2002 BAINER!**

Signature of Department Chair

Date

Contents

Definitions

Laboratory/Technical Area (LTA): any location where the use or storage of hazardous materials or equipment may be present or a potential hazard is used or stored. This may include research or teaching laboratories, storage rooms, waste accumulation areas, machine shops, etc.

Laboratory Safety Contact (LSC): a worker identified by the supervisor to act as a liaison between the Department Safety Contact, the College's Director of Facilities and Safety, and the College's Laboratory Safety Professional. They can provide LTA-specific training to other workers in the LTA.

Student: An individual enrolled in an academic class.

Supervisor: An employee who may have authority to hire personnel, evaluate performance, direct work assignments, apply progressive discipline, direct resources to correct identified safety issues. This includes a Principal Investigator (PI), area manager, unit manager, project manager, superintendent, and foreman/person. Unless specified in writing, the default "supervisor" in laboratory/technical areas is the PI.

Training Needs Assessment: Assessment of the training requirements of a target group in terms of (1) risk of hazards present in work activities, (2) their educational and professional background, (3) regulatory requirements for training. The training needs assessment must be documented. The supervisor is responsible for accomplishing the needs assessment.

Worker: For purposes of this IIPP, a worker is an individual who actively performs work functions with hazardous materials or equipment in a laboratory/technical area. A "worker" may be faculty, staff, student volunteer assisting in a non-academic class, or visitor/visiting scholar. For the purpose of this definition, "worker" **excludes** individuals who only passively participate in tours, lectures, conferences, etc., enrolled undergraduate students in a teaching laboratory, and other employees whose work assignment is not in an LTA.

Hazards

HAZARD EVALUATION HAS BEEN CONDUCTED FOR THE FOLLOWING JOB TYPES:

(1) Job Type: Administrative office employee

Individuals: All administrative office staff

(2) Job Type: Laboratory Researcher

Individuals: All who work in an LTA doing research, including graduate and undergraduate researchers

(3) Job Type: Laboratory Teaching Assistant

Individuals: All who assist faculty with teaching students enrolled in laboratory courses

A short description of each job type or specific individual noted above is included in the appendix of this document.

THE OCCUPATIONAL SAFETY AND HEALTH HAZARDS IDENTIFIED ARE DOCUMENTED IN THE FOLLOWING MANNER:

Hazard evaluation forms for general work areas and specific job types are maintained at the following location:

- *General work hazard evaluations are located in the department's IIPP, which is kept in 2002 Bainer Hall,*
- *Specific job hazard analyses are in LTA-specific Laboratory Safety Manuals located in these laboratories or other clearly designated location.*

SAFE WORKING CONDITIONS, WORK PRACTICES, AND PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS ARE DOCUMENTED AND COMMUNICATED IN THE FOLLOWING MANNER:

Safe work practices have been developed for general and/or specific job types or workstations and are maintained at the following location: (includes manuals, UC Davis SafetyNets - http://safetyservices.ucdavis.edu/snfn/safetynets, etc.)

- *Located in 2002 Bainer Hall in the IIPP for administrative office employees,*
- *Located in LTA-specific Laboratory Safety Manuals for the individual laboratories.*

Supervisors should refer to the UCOP policy on Personal Protective Equipment to go into effect on 31 March 2014 (http://policy.ucop.edu/doc/3500597).

Inspections/Investigations/Hazard Correction

INSPECTIONS ARE CONDUCTED TO VERIFY COMPLIANCE WITH SAFETY REQUIREMENTS TO IDENTIFY ANY ADDITIONAL HAZARDS AND TO INVESTIGATE ACCIDENTS, INJURY AND ILLNESS CASES AND UNUSUAL OCCURRENCES.

Frequency and Responsibility for Inspections:

(1) Area/Job Title: All facilities assigned to the Department of Mechanical and Aerospace Engineering

Frequency of Scheduled Inspections: Inspections are done on an annual basis

Person(s) Responsible: College of Engineering Laboratory Safety Professional (LSP), DSC, or designee

Documentation of Inspections

♦ Annual inspections are documented on a form similar to Form 1 (see the appendix), which include methods of correction of identified hazards.

- *Inspection forms are kept in the Laboratory Safety Manuals in each individual laboratory or in a well-defined centralized location for coordinated groups of laboratories.*
- *Copies are also kept in the departmental files in room 2002 Bainer Hall.*

♦ Laboratory Safety Contacts conduct annual self-audits of their laboratories using a form similar to Form 1 which include methods of correction of identified hazards.

- *Self-Audit forms are kept in the Laboratory Safety Manuals in each individual laboratory or in a well-defined centralized location for coordinated groups of laboratories.*

Accident and Injury/Illness Investigation

♦ Investigations are conducted as soon as possible after an accident, occupational injury or illness, hazardous or unusual occurrence is reported. These investigations are documented on a form similar to Form 2 (see the appendix) or a UCD Employer's Report of Occupational Injury or Illness (see Form 3 in the appendix).

♦ These forms are kept at the following location:

- *2002 Bainer Hall*

Correction of Unsafe or Unhealthy Conditions

- After an inspection or investigation, the LSP and/or DSC will contact the PI/Supervisor of any corrective action required to resolve the unsafe or unhealthy condition. The correction must be made in a timely manner as indicated in the communication with the PI/Supervisor. The LSP and/or DSC will contact the Department Chair if the condition needs to be corrected at the department level or UC Davis Facilities/EH&S if the correction involves general infrastructure, etc.

Training

SAFETY TRAINING IS PROVIDED INITIALLY OR IN THE FOLLOWING CIRCUMSTANCES:

- **Supervisors/Principal Investigators/Advisors are responsible for identifying hazards and safe practices in their laboratory** in consultation with the LSP and/or DSC and seeing that all personnel using the area are properly trained. (See UCOP Laboratory Safety Training Policy, http://policy.ucop.edu/doc/3500598.)
- **All training is the responsibility of the Supervisor/PI.** Training includes general workplace and laboratory safety including hazardous communication (http://manuals.ucdavis.edu/PPM/290/290-27.pdf) as well as training covering topics relevant to the specific assignment or job title. Training also covers potential occupational safety and health hazards.
- **All workers in an LTA are required to take the University of California Laboratory Safety Fundamentals training prior to 31 October 2014** or prior to unescorted access to the LTA if hired on or after 31 October 2014.
- **All workers in an LTA are required to have a Laboratory Site Safety Orientations.** (See Form 5 for a checklist.)
- All new employees are provided initial training upon hiring and prior to assignment.
- Employees are provided training when assigned to a new task for which training has not been received.
- Employees are provided training if new hazards are present or identified or if new SOPs have been established.
- Documentation of training is maintained on forms similar to Form 4 (see the appendix) for individual initial and annual refresher training, and/or Form 6 (see the appendix) for group training sessions. Documentation must include the following at a minimum:

  - Name(s) of individual(s) trained,
  - Name(s) of individual(s) providing the training,
  - Date of training, and
  - Brief description of topics covered.

  This documentation is kept at the following location(s):

  - *Records of training are located in the training section of the Laboratory Safety Manual in each individual LTA or in another well-defined centralized location for coordinated groups of laboratories.*
  - *Also MAE keeps copies of sign-up sheets from department trainings in 2002 Bainer Hall.*

- Refresher training is required at the following frequency:

  - *At a minimum, chemical spills and evacuation procedures must be covered annually.*
  - *For LTA workers, a review of any changes to the Chemical Hygiene Plan and/or Standard Operating Procedures is required annually.*
  - *For LTA workers, the Laboratory Safety Fundamentals training must be refreshed every three years.*
  - *For other retraining requirements visit the campus' EH&S training webpage for more information (http://safetyservices.ucdavis.edu/tr) for each type of training.*

- The Laboratory Safety Contact may provide alternative training at regular group lab meetings.

- Laboratory Teaching Assistants are given specialized safety training that emphasizes supervising students who are participating in laboratory classes.

Communication

EFFECTIVE COMMUNICATIONS WITH WORKERS HAVE BEEN ESTABLISHED WHICH INCLUDE THE FOLLOWING METHODS TO MEET THE STANDARD'S REQUIREMENTS:

- Communication of safe working conditions, practices, and required personal protection equipment is included in initial and all subsequent training.

- Other forms of employer-to-worker communications on safety topics include:

  - Letters placed in the worker's mail box
  - E-mail messages sent to the worker's campus email address
  - Posters and notices placed in offices, laboratories, and on the MAE Safety bulletin board in the north hallway of the the 2nd floor of Bainer Hall near 2130.

- This employer's method to solicit safety-related information from employees includes:

  Discussions held during staff and laboratory group meetings and by sending a note to the DSC or Department Chair,

  and anonymously by:

  Leaving messages in the DSC's box outside the 2020 Bainer offices.

  - Form 7 (see the appendix) has been made available for this purpose.

  - Employees have been advised there will be no reprisals or other job discrimination for expressing any concern, comment, suggestion or complaint about a safety-related matter.

- Standard Operating Procedures

- Material Safety Data Sheets

- Evacuation Plans

- Group Research Meetings

Recordkeeping

RECORDKEEPING REQUIREMENTS OF 8 CCR §3203(D) WILL BE ADHERED TO, INCLUDING:

- Maintenance of all written records for a minimum of three years.
- Maintenance of training records for employees who have worked less than one year is not required, if the former employee receives a copy of such record.

Compliance

COMPLIANCE AND NEGLIGENCE:

- Employees have been advised by the following method: during initial training that safe work conditions, practices, and required personal protective equipment are mandatory and will be enforced by the following:

  - Discipline for non-compliance in keeping with University personnel policy:

  Policies and procedures are given in Personnel Policies for Staff Members (PPSM) Sections 62-65 and Academic Personnel Manual (APM) Sections 15, 16, 140, and 150.

Laboratory Plans

LABORATORY SPECIFIC PROCEDURES AND PLANS:

- **It is the responsibility of each Supervisor/Principal Investigator/Advisor to be sure all personnel within their responsibility are properly trained, informed of workplace hazards, and aware of this IIPP.**

- **The laboratory needs appropriate documentation of hazards and methods to mitigate them in the Laboratory Safety Manual.**

Emergency Action Plan

EMERGENCY ACTION PLAN:

- MAE has separate documents covering Emergency Action Plans for the buildings it occupies. There are two documents: **Emergency Action Plan** for Bainer Hall and the Wind Tunnel Building and **Secondary Emergency Action Plan** for other buildings. Both of these are stored in 2002 Bainer Hall and on the MAE safety web site (http://mae.ucdavis.edu/resources/safety-information/-information/).

- If an emergency arises, dial 911 to notify the university emergency services dispatcher immediately. Clearly explain the nature of the emergency. For example, if the emergency involves a chemical spill, be sure to notify the dispatcher that there has been a chemical spill, the name of the chemical spilled, the location of the spill, etc. Inform others in your work area of the spill and if it is a hazardous material evacuate the room. See EH&S's Safety Net 13 (http://safetyservices.ucdavis.edu/snfn/safetynets/snml/sn13/sn13) for more information.

Appendix

Form 1 – General Laboratory Safety Audit

Building_____ Room #_____ Date_____

P.I._____ Lab Contact _____

Auditor_____ Telephone #_____

	YES	NO	N/A	Comments
1. Are the Safety Data Sheets (SDS) for all chemicals in the laboratory in a clearly marked binder and location?	☐	☐	☐	
2. Are laboratory personnel familiar with the use of the SDS?	☐	☐	☐	
3. Are training records up to date?	☐	☐	☐	
4. Is the chemical inventory up to date?	☐	☐	☐	
5. Is the Department Injury and Illness Prevention Program up to date?	☐	☐	☐	
6. Does the lab have a Chemical Hygiene Plan and/or Standard Operating Procedures? Are they up to date?	☐	☐	☐	
7. Are work areas clean and uncluttered?	☐	☐	☐	
8. Are food and beverages kept away from work areas and out of the laboratory refrigerators or cabinets?	☐	☐	☐	
9. Are refrigerators and freezers that are used for storage of flammables laboratory safe and/or explosion proof and properly labeled?	☐	☐	☐	
10. Are rotating parts and belts guarded with screens having less than 1/4” opening?	☐	☐	☐	
11. Are safety shower and eyewash accessible within 10 seconds of travel time from the laboratory if chemicals are used in the lab?	☐	☐	☐	
12. Are sharps stored in puncture-proof containers and labeled appropriately (medical or hazardous waste)?	☐	☐	☐	
13. Is a fire extinguisher within 75 feet of laboratory?	☐	☐	☐	
14. Are safety shower, fire extinguisher, and alarm locations clearly indicated?	☐	☐	☐	

	YES	NO	N/A	Comments
15. If more than 10 gallons of flammables are stored, is an approved flammable storage cabinet used?	☐	☐	☐	
16. Are fire doors unobstructed, not propped open, and readily closed?	☐	☐	☐	
17. Are electrical plugs, cords, and receptacles in good condition (no slices or frayed cords)?	☐	☐	☐	
18. Is the use of extension cords appropriate? (These are not to be used in place of permanent wiring.)	☐	☐	☐	
19. Are all electrical boxes, panels, receptacles, and fittings covered to protect against electrical shock?	☐	☐	☐	
20. Are control switches, circuit breakers, electrical panels, and emergency power cabinets free of obstructions by at least 36 inches?	☐	☐	☐	
21. Does the laboratory fume hood have clear airflow?	☐	☐	☐	
22. Are compressed gas cylinders secured?	☐	☐	☐	
23. Are valves of gas cylinders capped when not in use?	☐	☐	☐	
24. Are all chemicals labeled w/name, hazard warning, and date opened?	☐	☐	☐	
25. Are all hazardous waste material containers labeled using UCD hazardous waste label?	☐	☐	☐	
26. Are hazardous/bio material waste disposal instructions or procedures in a clearly marked location? (EH&S SN 3 & 8)	☐	☐	☐	
27. Are chemical spill instructions or procedures in a clearly marked location? (EH&S SN 13)	☐	☐	☐	
28. Are incompatible chemicals separated by hazard class (acid, bases, oxidizers, flammables)?	☐	☐	☐	
29. Are chemicals stored on floor in secondary containment?	☐	☐	☐	
30. Are shelf restraints for chemicals stored in cabinets used?	☐	☐	☐	
31. Are emergency after-hours phone #'s prominently displayed in the laboratory and notification door sign current?	☐	☐	☐	
32. Are doorways and aisles between counters not blocked or cluttered?	☐	☐	☐	
33. Is personal protective equipment available (goggles, lab coats, gloves)?	☐	☐	☐	

Additional Comments:

Form 2 – Investigation Report

MECHANICAL AND AEROSPACE ENGINEERING
INJURY AND ILLNESS PREVENTION PROGRAM

ACCIDENT/INCIDENT INVESTIGATION REPORT

Name(s) and title(s) of affected person(s)

Date & time of accident, illness/injury. **Location where accident, illness/injury occurred.**

Description of the incident.

Describe the nature of the injuries or illness or property damage caused by the accident.

What condition(s), practices or equipment contributed to the incident?

What action will be taken to prevent reoccurrence or respond in a different manner?

Date Correction will be completed **Signature of person to take corrective action**

Department Safety Coordinator (DSC) Comments

Date received by DSC **Signature of the DSC**

Form 3 – Worker's Compensation Report

UCD Employer's Report of Occupational Injury or Illness

UNIVERSITY POLICY REQUIRES THAT INDUSTRIAL INJURY/ILLNESS BE REPORTED TO WORKERS' COMPENSATION WITHIN 24 HOURS OF OCCURRENCE AND STATE REGULATIONS REQUIRE THAT ALL ACCIDENTS BE INVESTIGATED.
In the event of a serious injury or hospitalization, call Workers' Compensation immediately at (530) 757-3266. This form must be completed in its entirety and mailed or faxed (530-757-7779) to Workers' Compensation. Omission of information could result in a delay of benefits.

EMPLOYEE MUST COMPLETE THESE SECTIONS:

EMPLOYEE DATA

Employee Name:		Employee's UCDavis ID #:
Address:		Home Phone: ( )
City/State/Zip:	Sex: ☐Female ☐Male	Date of Birth:
Department/Location:		Employee's Work Phone: ( )
Payroll Title/TC:	Date of Hire:	Annual Gross Salary: $
Supervisor's Name:		Supervisor's Work Phone: ( )
Employee ( ) Volunteer ( ) Student-Employee ( )	( )hours per day	( ) days per week ( ) total weekly hours

EMPLOYEE STATEMENT

Specific Injury/Illness/Exposure:	Body Part(s) affected:	Date of injury/illness:
Location where injury or illness occurred:		Others Injured? ☐Yes ☐No
What equipment, materials or chemicals caused the injury/illness? :		Who witnessed this injury?
Explain in detail how the injury occurred. Include specific activities/tasks performed at the time.		
Medical Treatment provided by: ___Employee Health Services ___Sutter Davis Hospital ER ___Private Physician ___UC Davis Medical Center ___First Aid, no medical care needed.		Other: (Provide Name &Phone #) _____
Employee Signature:		Today's Date:

EMPLOYER'S INVESTIGATION AND STATEMENT (EMPLOYER COMPLETES):

EMPLOYER

After the investigation, explain in detail how the injury/illness occurred and the specific activity being performed:

What was the injury, illness or exposure?

INITIAL CAUSE	CONTRIBUTING FACTORS AND ACTIVITIES		PREVENTIVE ACTIONS
☐ Struck by or against object (indicate) _____ ☐ Caught in/under/ between ☐ Fall / Slip / Trip ☐ Material handling or lifting ☐ Repetitive motion ☐ Chemical exposure ☐ Body fluid exposure: __Needle stick __Sharps ☐ Animal bite ☐ Other, Explain	**Equipment** ☐ Equipment failure ☐ Equipment unavailable ☐ Improper equipment or material used for job **Personal protective equipment** ☐ Not worn ☐ Not readily available ☐ Not adequate for the task ☐ Personal protective equipment failure **Training/Experience** ☐ Lack of training ☐ Safety training provided, not followed ☐ New task for employee or lack of experience **Work Area** ☐ Work area set up improperly ☐ Inadequate lighting or noise issues ☐ Housekeeping issues ☐ Environmental factors (rain, wind, temp. etc)	☐ Ventilation issues ☐ Ergonomic factors **Employee** ☐ Physically not able to do work ☐ Employee fatigue ☐ Unbalanced or poor position or motion ☐ Incorrect procedures used for task ☐ Other unsafe practice **Assistance** ☐ Difficult to perform task without help ☐ Safety features or devices not readily available ☐ Assistive devices not used ☐ **Lack of policy/procedure** ☐ **Animal** (explain below) ☐ **Other** (explain) _____ **Use additional pages as needed**	**SUPERVISOR WILL:** ☐ Develop/revise safety procedures and update IIPP or Chem. Hyg. Plan ☐ Request ergonomic evaluation ☐ Order new equipment ☐ Order new personal protective equipment ☐ Remove equipment from use and repair/replace ☐ Schedule preventive maintenance ☐ Will retrain employee before task is re-assigned. ☐ Perform on-site review of work activity, update job safety analysis. ☐ Reconfigure work area ☐ Communicate corrective actions to others in job category. ☐ Other_____ **Preventive actions will be completed by:** Name_____ Expected date of completion_____

SUPERVISOR'S OR MANAGER'S SIGNATURE:	**Date of Investigation:**
DEPARTMENT HEAD'S SIGNATURE:	**Date:**

PLEASE NOTE: COMPLETING THIS FORM IS NOT AN ADMISSION OF UNIVERSITY LIABILITY **1/2006 ER: WC/H/MJB**

Form 4 – Initial & Annual Safety Training Record

University of California, Davis - College of Engineering

INITIAL AND ANNUAL SAFETY TRAINING RECORD

(Please provide a copy to the PI or lab manager for each lab in which you work.)

Name (print):_____Date:_____

Department: *Mechanical and Aerospace Engineering* PI/Supervisor:_____

Appointment Type (check one): ☐ Faculty ☐ Post-Doc ☐ Visiting Scholar ☐ Staff ☐ Grad Student ☐ Undergrad Student

I, _____, hereby certify that this employee/student has been trained on the following:

I. ☑ **Injury and Illness Prevention Plans**
- ✓ The general contents of department IIPPs
- ✓ My right to ask any question, or report any safety hazards, either directly or anonymously without any fear of reprisal.
- ✓ The location of departmental safety bulletins and required safety postings.
- ✓ Reporting safety concerns.
- ✓ Accessing the department safety coordinator.
- ✓ Reporting occupational injuries and illnesses.

II. ☑ **Hazard Communication Training**
- ✓ The potential occupational hazards in the work area associated with my job assignment.
- ✓ The location and availability of (Material) Safety Data Sheets (M)SDS.
- ✓ The hazards of any chemicals to which I may be exposed, and my right to the information contained on MSDSs for those chemicals.

III. ☑ **Emergency Action Plan (EAP)**
- ✓ Emergency escape routes and procedures and Emergency Assembly Area (EAA)
- ✓ How to report a fire and other emergencies.
- ✓ Names or regular job titles of persons to be contacted for further information.

IV. ☑ **Guidelines for Chemical Spill Control and Waste Disposal (Safety Nets 13, 16, 8, 43)**
- ✓ Chemical Hygiene Plans
- ✓ Proper response procedures for chemical spills.
- ✓ Proper approach to chemical waste disposal.

I acknowledge that I received this training and that I am aware that, before working in any laboratory or shop, I must complete all additional training specific to that laboratory or shop as well as the UC Fundamentals of Laboratory Safety course through the online Learning Management System before working unaccompanied in those facilities. (go to https://uc.sumtotalsystems.com)

Employee/Student Signature_____Date_____

Form 5 – EH&S Site-Specific Training Checklist
(http://ehs.ucdavis.edu/ps/cls/linked-docs/training-checklist/at_download/file)

Site-Specific Safety Orientation & Training for New Laboratory Personnel

Revised - 07/2014

Prior to completing this site safety orientation and training, all laboratory personnel must have successfully completed the *UC Laboratory Safety Fundamentals* course. Completion of this training is required prior to personnel being granted unescorted access to the laboratory. This serves to satisfy components of the *University of California Policy - Laboratory Safety Training* and UC Davis policy *PPM290-56*.

I _____ confirm receipt of training on the listed topics on
(print name, trainee)

_____ from _____. All of my questions regarding
(date) (print name, trainer)

this material have been answered. Topics have been initialed, or marked with an "X" where not applicable.

_____ _____
(signature, trainee) (signature, trainer)

Initial	Topic	Action
	EMERGENCY PROCEDURES	
	Fire Alarm Pull Station:	Show location(s) and proper activation.
	Eye Wash / Safety Showers:	Show location(s) and proper operation.
	Spill Procedures	Show location of spill kit(s), SafetyNets *#13* and *#127* (if applicable), and describe procedures.
	First Aid Kits:	Location(s) and description of contents.
	Phone:	Location(s), detail dialing instructions, '911' dialing instructions, bomb threat card.
	Emergency Response Guide:	Location(s) of flipchart guide, discuss scenario actions
	Emergency Action Plan:	Review Emergency Action Plan. Demonstrate both paths to Emergency Assembly Area. Review evacuation procedures for disabled employees if applicable.
	Warn Me:	Enroll in UC Davis *Warn Me* emergency alert system, recommend registering cellular phone number.
	ENGINEERING CONTROLS	
	Chemical Fume Hood(s):	Demonstration of proper use, instruction on adjustable controls, flow sensor function, and training requirements.
	Biological Safety Cabinet(s):	Demonstration of proper use, instruction on adjustable controls and training requirements.
	Chemical Storage Location(s):	Location(s) and segregation rules, volume limits (>10 gallons requires flammable storage cabinet).
	Other Controls (*e.g.*, Glove Boxes, Snorkels, Gas Cabinets, Paint Booths, Laminar Flow Benches):	Demonstration of proper use, instruction on adjustable controls.
	Describe in detail:	

ADMINISTRATIVE CONTROLS	
Laboratory Safety Manual (incl. Chemical Hygiene Plan):	Location and content description. Also, any applicable Laboratory Safety Plan(s) location and content.
Safety Data Sheets (SDSs):	Demonstrate electronic access and describe laboratory repository of hard copy SDSs, if applicable
Standard Operating Procedures (SOPs):	Location of lab's SOPs, describe required approvals. Identification of chemical processes / areas requiring specific SOP use, and laboratory safety rules.

Describe in detail:

PERSONAL PROTECTIVE EQUIPMENT	
Determine Hazard-Specific Safety Training:	Consult *UC Davis Training Matrix for Laboratory Personnel*, enroll in courses
Lab Coat:	Provide at no cost fitted laboratory coats. Some labs/hazards require flame resistant coats. • Type: ▫ Cotton/Blend ▫ Barrier ▫ Flame Resistant Size:_____
Eye Protection:	Provide at no cost pair(s) of safety eyewear. Glasses must fit appropriately, be comfortable to wear, and stay securely in place. For labs where goggles must be worn provide pair(s) of fitted chemical splash goggles. When a face shield is required, demonstrate proper use, care and storage. • Corrective Prescription Y / N Model:_____
Gloves:	Location(s), provide knowledge and resources to select correct type. Instruct proper procedure to don and doff.

OTHER	
Department IIPP:	Location and review
Hazardous Waste:	Overview of laboratory hazardous waste procedures. Location(s) of accumulation area, demonstrate proper labeling, describe proper storage requirements, and detail pickup/removal procedures.
Specialized Equipment:	Review of safety procedures for proper operation. *e.g.*, UV light, laser, high voltage equipment, superconducting magnets, cryogen handling, high/low vacuum, etc...

Describe in detail:

Form 6 – Worker Safety Training Record

University of California, Davis
Department of Mechanical and Aerospace Engineering

SAFETY TRAINING ATTENDANCE RECORD

Topic of Training Session (see reverse for itemized list): _____

_____

Instructor(s):	Location:	Date:	Time:	Length:

We are legally required to maintain records regarding our safety training activities. Please assist us by providing the information indicated below to document your attendance. Thank you.

Name *(Please Print)*	Campus Phone	e-mail	Signature	PI/Supervisor
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

University of California, Davis
Department of Mechanical and Aerospace Engineering

SAFETY TRAINING ATTENDANCE RECORD
(reverse)

Topics Covered in Training:

1.

2.

3.

4.

Form 7 – Safety Suggestion Form

Department of Mechanical and Aerospace Engineering

University of California, Davis

EMPLOYEE SAFETY SUGGESTION FORM

This form is for use by employees who wish to provide a safety suggestion or report an unsafe workplace condition or practice.

Description of Unsafe Condition or Practice _____

_____

_____

Causes or Other Contributing Factors _____

_____

_____

Employee's Suggestion for Improving Safety _____

_____

_____

_____

Has This Matter Been Reported to the Area Supervisor? Yes _____ No _____

Employee Name (Optional) _____

Department _____ Date _____

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.

The employer will investigate any report or question as required by the Injury and Illness Prevention Program Standard (8 CCR §3203) and advises the employee who provided the information or the workers in the area of the employer's response.

Job Descriptions

Administrative Office Employee

The Mechanical and Aerospace Engineering Administrative Office Employee works in an office environment. This person may be responsible for some of the following activities:

Coordinates office services, such as personnel, budget preparation and control, housekeeping, records control, and special management studies. Studies management methods in order to improve workflow, simplify reporting procedures, or implement cost reductions. Analyzes unit operating practices, such as record keeping systems, forms control, office layout, suggestion systems, personnel and budgetary requirements, and performance standards to create new systems or revise established procedures. Analyzes jobs to delimit position responsibilities for use in wage and salary adjustments, promotions, and evaluation of workflow. Studies methods of improving work measurements or performance standards. Coordinates collection and preparation of operating reports, such as time-and-attendance records, terminations, new hires, transfers, budget expenditures, and statistical records of performance data. Prepares reports including conclusions and recommendations for solution of administrative problems. Reviews and answers correspondence. May assist in preparation of budget needs and annual reports of organization. May direct services, such as maintenance, repair, supplies, mail, and files. May compile, store, and retrieve management data, using computer.

Potential Hazards:

Back strain, eyestrain, repetitive motion injury, injuries due to slips, trips, falls, and/or falling objects, electrical hazards, physical injuries due to fires, earthquakes, bomb threats, and workplace violence.

Laboratory Researcher

The Laboratory Researcher works in an office and/or laboratory environment. This person may be responsible for some of the following activities:

Constructs and operates equipment used in research in mechanical engineering or aerospace engineering. Plans and conducts research, including experimentation and theoretical studies.

Potential Hazards:

Same as those for office worker, plus potential for injuries due to chemical exposure, use of machine tools, exposure to excessive noise levels, etc. Specifics should be outlined in the Laboratory Safety Manual for the laboratory.

Laboratory Teaching Assistant

The Laboratory Teaching Assistant works in an office and/or a laboratory environment. This person may be responsible for some of the following activities:

Supervise undergraduate students while they are performing experiments related to their coursework. Ensure that students are performing the experiments in a safe manner, and that students comply with all SOPs and laboratory safety policies.

Potential Hazards:

Same as those for office worker, plus potential for injuries due to chemical exposure, use of machine tools, exposure to excessive noise levels, etc. Specifics should be outlined in the Laboratory Safety Manual for the teaching laboratory.