

UC SAFETY SPOTLIGHT

A UC Systemwide Publication of
the Environment, Health & Safety
Leadership Council

SEPTEMBER 2017

Safety Training

IN THIS ISSUE

Lab Safety Fundamentals
Course Gets an Update!

Ergonomics Training—The
Gravity of the Situation

Building a Stronger Culture
of Emergency Preparedness
Nationwide

Did You Know?

POSTER OF THE MONTH



Lab Safety Fundamentals Course Gets an Update!

After several years, the Laboratory Safety Fundamentals course is getting a much needed update! Thanks to our membership in the [Safety Training Consortium](#), the UC obtained a redesigned course that emphasizes safety culture, and how to sustain it post the UC Regent Agreement, which sunset last year. The Risk & Safety Training Center of Excellence recently finished packaging the course for review. This included combining five separate modules into one course, and compressing the videos to launch efficiently in the SumTotal Learning Management System (LMS).

Topics covered include:

1. An Introduction to Laboratory Safety (including safety culture, rights and responsibilities and hazardous waste management)
2. Analyzing Hazards
3. Controlling Exposures and Minimizing Risk
4. Vigilance in the Laboratory

The course was designed by several universities across the nation, and included faculty input. It features professional videos, knowledge checks and a final test to provide a mechanism for all laboratory personnel to demonstrate competency.

The draft is was released on July 7, 2017 for review by the UC Laboratory Safety Workgroup (LSWG) to ensure it addresses University of California specific issues. You can view it online by visiting <http://uc training.education> (click on “Courses”). Target date for release all campuses is August/September 2017. For more information, contact training@ucr.edu.

Ergonomics Training—The Gravity of the Situation

By Dr. Clyde Blackwelder, Ergonomic Specialist, UC Riverside

Perhaps the first thing to be said about ergonomics training is actually a question: “Does it actually work?” Does it achieve its goal of reducing cumulative trauma injuries? After 20+ years of providing ergonomic services and employee training to industry, I can assertively answer... it depends! It depends on what is taught, especially as it relates to gravity.

Employee training, both computer-based and in-person, often lacks any

DID YOU KNOW?

All individuals performing research are required to complete training courses specified by their Environmental Health and Safety officials.

Training is administered through each campus' Learning Management System (LMS), known as the UC Learning Center. In the past, in order for a Principle Investigator (PI) to determine whether their lab group members had completed required training, they had to log in to LMS, find each of their lab workers, scroll through all of the courses they had taken and then pick out the courses related to laboratory safety.

In 2014, UC Risk and Safety Solutions integrated the Profile application into its suite of safety and risk management tools. The suite includes the Laboratory Hazard Assessment Tool (LHAT), used by tens of thousands of researchers at all 10 campuses throughout the system, as well as other research-related applications like Biological Information Online (BIO), Chemicals, Radiation and others.

Profile is also integrated with each campus' LMS. Profile now does the work for the PI, pulling out LMS course data that each worker in a lab has completed. Courses included in this view – found under the Profile My Training tab – are specifically chosen by each campus' EH&S staff to be important to risk and lab safety. This provides a specialized view of only the relevant courses, making it quickly and easily accessible for EH&S, safety inspectors and lab staff. This quick view of course data also helps PIs to identify compliance by their lab staff to ensure the safety of everyone doing research.

To learn more about Profile and how it's integrated with LMS, visit ehs.ucop.edu and select the Profile icon in the top right corner. Selecting "My Training" will display some or all of the completed LMS courses, depending on whether or not the user belongs to an established Profile Group.

mention of the word gravity. Well so what? What does that have to do with anything? Everything!

Almost every ergonomic intervention in the office-worker arena has the same ultimate goal – to promote postures that allow the worker to support their own body weight against the force of gravity, in the most efficient manner possible.

To illustrate this point, consider the following: how long can you hold your arm away from your body at a 90-degree angle to your torso before your shoulder begins to hurt? Not long – probably less than five minutes. Conversely, if you let your arm hang by your side, how long can you maintain its weight in that position? Potentially, for the rest of your life.

So it is with the head, neck and torso. The spinal curves in the body have a specific purpose – to distribute weight evenly throughout the spine. These curves are unique to humans and are present when the ear, shoulders and hips are positioned in a straight line. This occurs most naturally when we stand. Sitting causes the lumbar curve to be lost, and the cervical (neck) curve follows suit – causing a slumped posture. This is a natural, intuitive way for the body to move and it's why most people sit with a slump. Unfortunately this puts the spine in a weak posture that is inefficient at resisting the force of gravity. Sitting up straight restores the "power posture" of the spine, but demands muscular work in the lower back and cannot be sustained for long. However, if we assume this power-posture with support from a well-positioned backrest, we achieve our most efficient posture with minimal effort.

To be most effective, ergonomic training should shed light on the crux of the issue, which is defining the optimal postures of the body when working so that we can tolerate the unrelenting force of gravity that constantly bears down on us. When workers understand the effects of gravity on the body and what they can do about it, they are better equipped to make changes in their habits and, most importantly, their posture. They garner the full value of ergonomic interventions. If training lacks this information and employees don't change their habits, then our efforts yield less net value.

Why bother to appreciate the gravity of gravity? It may make the difference between pain and no pain, or between cumulative trauma injuries and lost workdays or a productive, healthy workforce. And for us ergonomic educators, it may make us more successful in our efforts to help those we try to help.

Building a Stronger Culture of Emergency Preparedness Nationwide

By: James Caesar and Jonathan Montenegro

The UCSB Emergency Management program and the UCSB student population has been partnering with campus emergency preparedness programs, including American Red Cross and Community Emergency Response Team (CERT) training, for almost eight years. One of our goals is to monitor the students as they leave campus if they continue with these programs as we try to build a stronger culture of emergency preparedness nationwide. Building upon his experience from the UCSB CERT program (student and trainer), Jonathan Montenegro decided to join the AmeriCorps NCCC FEMA Corps to gain disaster response experience in his goal of

becoming an Emergency Manager (<https://www.nationalservice.gov/programs/amicorps/fema-corps>).

In his year of service, Jonathan started with one month of role placement and training in Maryland. He joined a FEMA response team – “Eagle 4” and was deployed on numerous responses including Louisiana, Texas, Mississippi, North Carolina and Massachusetts. Jonathan’s first assignment was Disaster Survivor Assistance in Louisiana and North Carolina which entailed going door-to-door looking for survivors and making sure they were on their way to receiving the help they needed after major flooding. Over the next year, Jonathan worked in many aspects of emergency management, including working in a Joint Field Office, conducting community planning, capacity building and performing consequence management. A highlight of his service was on the “Sail Boston” event working with local organizations in recovery efforts including leading volunteer groups in mucking and gutting damaged homes. Lessons learned in his internship included team building (being away from home and living with his new FEMA family), dealing with living in a disaster zone (living in rehabilitation centers, gymnasiums and tents) and learning how to budget his food allowance. Jonathan noted “our biggest complaint was the ‘hurry up and wait’ aspect of our deployments. We were required to deploy as soon as possible and once we got there, they didn’t really have anything for us to do, so we’d have to wait around a couple days.” But Jonathan was quick to point out “You get out of the program what you put into it and I am definitely glad I was able to give 10 months of service to join in on their mission. In my term of service, I made sure to meet as many people as I could who were in positions I’d one day want to be in. Their stories, advice, and guidance, have been invaluable to me and is an aspect of FEMA Corps that has proven most beneficial to me.”



By the end the term of service, Jonathan had earned a spot as an Assistant Team Leader, earned the Gold Presidential Service Award and the AmeriCorps NCCC Atlantic Region Leadership Award. Jonathan has been hired for FEMA’s National Disaster Recovery unit and starts the next stage of his emergency management career as a Crew Leader Reservist with the Resource Coordination Group. He highly recommends the AmeriCorps NCCC FEMA Corps program for anyone who is thinking about taking a gap year after graduating and would like to spend a year traveling and assisting people in need and/or for anyone looking to get an in-depth glimpse into the world of emergency management from the perspective of the Federal Government. His only advice would be to roll with the hardships and treat every day as a chance to better yourself as a civil servant and grow professionally.

CONNECT

Know where to turn on your UC campus for the information you need to keep yourself, your workplace and your environment safe and secure. Click on the campus links below to connect to local program, educational and informational resources.

[UC Berkeley](#) • [UC Davis](#) • [UC Irvine](#)
[UCLA](#) • [UC Merced](#) • [UC Riverside](#)
[UC San Diego](#) • [UC San Francisco](#)
[UC Santa Barbara](#) • [UC Santa Cruz](#)
[UCOP](#) • [UC ANR](#)

RESOURCES

UC Safety Suite: <https://ehs.ucop.edu/myboard/splash>

Risk & Safety Solutions: <http://riskandsafetysolutions.com>

Center for Laboratory Safety: <https://cls.ucla.edu>

FEEDBACK PLEASE

Send an email to safetyspotlight@ucdavis.edu to submit your comments on the September issue or to suggest content ideas for future issues. We look forward to hearing from you!

This publication is produced and maintained by the Communications Team at Risk @ Safety Solutions. For more information regarding our products and services, please email service@RiskandSafetySolutions.com.

 **RISK & SAFETY SOLUTIONS**
www.RiskandSafetySolutions.com