



# Safety BEACON

www.udel.edu/ehs  
302-831-8475

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## BIORAFT

ENTERPRISE SAFETY, COMPLIANCE & TRAINING SOFTWARE

EHS is happy to announce that the implementation of BioRAFT is steadily moving forward. As you know, this will be taking the place of EHS Assistant for equipment management, inspections, and training management, including online training courses. Access to the system is through the CAS login, so anyone who has a UDeNet ID can access the system. Below are some updates on the program.

For Principal Investigators (PIs), if you haven't already, please go online and set up your lab in the system. Upon login, you will be directed through a setup wizard. Most labs have taken about 15 minutes to go through this process. If you prefer, you may delegate a Compliance Liaison(s) within your lab who would then have access to set up the lab records, add workers to the system, respond to lab inspections, and monitor the training status for the lab.

All trainings with the exception of Corrosive Safety Training are in BioRAFT. On March 22 the automatic notification feature for training requirements was activated. Lab workers will now receive automated emails when they are coming due (or are overdue) for a safety training. If they continue to remain overdue, the system will also copy their PI/supervisor on the overdue notices. Registration for live trainings offered through EHS are also available in BioRAFT. As long as someone has a UDeNet ID they can log into BioRAFT to sign up for a training course or take the courses online.

With the agreement of the University Chemical Hygiene Committee, additional safety trainings are now required for chemical users in labs. "Fire Safety Training in Laboratories" will be a required training every two years. "Lab Ventilation" training will also be a one-time requirement for lab personnel.

All EHS lab inspections are now being completed in BioRAFT. This seems to be going very well and responding to open inspection items is easy for both the lab and EHS.

In addition to EHS lab inspections, we now have the capability for lab groups to perform self-inspections within BioRAFT. In addition, safety committees can assign members of their committee to perform inspections on other department members' labs.

Article continued on page 2.

Have you received an email that looks similar to the sample below? Don't panic, this is not SPAM. This email is the automatic notification you will receive when/if you have training delinquencies.

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**From:** support@bioraft.com on behalf of no-reply@bioraft.com  
**Sent:** Thursday, March 30, 2017 5:32 PM  
**To:** dehsafety@UDel.Edu  
**Subject:** Required Safety Training Past Due!

\*\*\*IMPORTANT\*\*\*

DEHS Sample,

The following training requirements are overdue and must be completed promptly.

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You are required to complete the following training courses. Click the link below to login and start the courses. Contact Environmental Health & Safety if you have questions at dehsafety@udel.edu.

Name: Biosafety Training (Web)  
 Description: Safe Use of Biological Materials

Launch Link: <https://delaware.bioraft.com/rafttraining/course/219>

Name: Bloodborne Pathogens Training (Web)  
 Description: OSHA Bloodborne Pathogens Training

Launch Link: <https://delaware.bioraft.com/rafttraining/course/209>

If you believe you are not required to complete this course OR if you have recently completed the course, contact dehsafety@udel.edu so you will not continue to receive email reminders.

Do not REPLY to no-reply@bioraft.com -- it is not monitored.

If you are unsure whether or not you need to take a certain training, use the chart below for reference. We look forward to the improved capabilities of BioRAFT. If you have any questions regarding how to use it, please feel free to contact us.

GENERAL SAFETY			
Are you a new Graduate Student?	Yes	<a href="#">New Graduate Student Safety Orientation</a>	Initial
Will you use Respiratory Protection?	Yes	<a href="#">Respirator Training</a>	Annual
CHEMICAL SAFETY			
Will you work in a Lab?	No	<a href="#">Safety Orientation &amp; Right-to-Know Training</a>	Annual
	Yes	<a href="#">Advanced Chemical Hygiene Plan/ Right-to-Know Training</a>	Annual
		<a href="#">Chemical Waste Disposal Training</a>	Annual
		<a href="#">Fire Safety Training for Laboratories</a>	Initial & 2 years
		<a href="#">Laboratory Ventilation Training</a>	Initial
Will you work with Hydrofluoric Acid?	Yes	<a href="#">Hydrofluoric Acid Safety Training</a>	Annual
Will you ship or transport with Dry Ice?	Yes	<a href="#">Dry Ice Shipping Training</a>	Initial & 2 years
Will you work with Compressed Gasses?	Yes	<a href="#">Compressed Gas &amp; Gas Cylinder Safety Training</a>	Initial & 2 years
Will you work with Explosive, Reactive, Acutely Toxic, Carcinogenic or Corrosive Materials?	Yes	<a href="#">High Hazard Chemical Safety Training</a>	Initial
BIOLOGICAL SAFETY			
Will you work with Biological Materials?	Yes	<a href="#">Biosafety Training</a>	Initial & 2 years
Will you work with Human Samples or Cell Lines?	Yes	<a href="#">Bloodborne Pathogens Training</a>	Annual
Will you operate an autoclave?	Yes	<a href="#">Autoclave Safety Training</a>	Initial
Will you work with Recombinant DNA?	Yes	<a href="#">Recombinant DNA Research Training</a>	Initial & 3 years
RADIATION SAFETY			
Will you work with Radioactive Materials?	Yes	<a href="#">Radioactive Materials Safety Training</a>	Annual
Will you work with a Class 3B or 4 Lasers?	Yes	<a href="#">Laser Safety Training</a>	Initial & 2 years
Will you work with an X-Ray Producing Device?	Yes	<a href="#">X-Ray Device Safety Training</a>	Initial

# Fire Drills on Campus

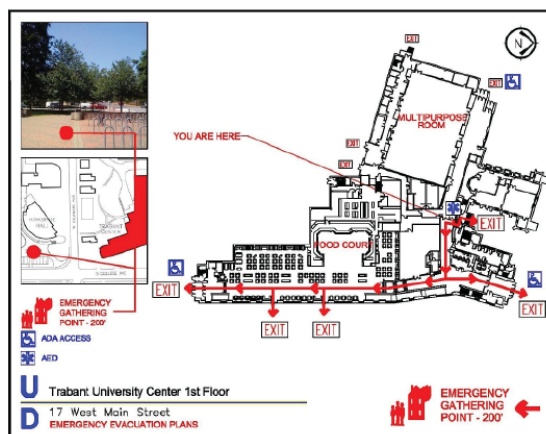
*Tis the Season!*

Here at UD, springtime typically finds EHS Fire Safety Staff, Electronics Technicians and UDPD Officers testing the Residence Halls, Early Learning Center, College School, and many academic building occupants on their ability to react to fire alarms in their buildings. Fire drill requirements originated as far back as 1958, when a catastrophic fire occurred at Our Lady of Angels School, Chicago, IL. 92 children and 3 nuns perished in a fire that trapped them on the second floor of the school. The building lacked fire alarms and detectors to alert them to evacuate.

Many of us remember participating in fire drills during our K-12 education years. The bells rang, we formed up in a single file line and were led out by the teacher to the designated gathering space. Of course somebody was assigned to turn out the lights and shut the door behind us. This practice is currently followed at UD Early Learning Center, The College School/Lab Pre-school and the Wilmington ELC on a monthly basis. The children and staff are well regimented in what to do when the alarms sound. Fire drills for K-12 are mandated by the DE State Fire Prevention Regulation on a monthly basis.

As we get older, our tendency to react promptly and evacuate during fire alarms loses its sense of urgency. We are now older and wiser and need to know if we “really” need to evacuate when the fire alarm sounds. Because this older and wiser perspective can lead to complacency, the need for the adult population to train for fire events is important. The DE State Fire Regulation requires varied frequencies for fire drills depending upon the building use. Many of our buildings are considered “Business” use buildings where processes aren’t typically hazardous, but our building populations in many cases are in the hundreds of occupants. These type buildings should have at least one fire drill each year. Student Housing (Residence Halls, Apartments and Greek Housing) should have two fire drills per semester. Large assembly buildings such as The Bob Carpenter Center, Student/University Center and Carpenter Sports are required to have quarterly fire drills for employees/staff only. The patrons of assembly buildings are not typically involved.

In preparation for fire drills, occupants should have knowledge including, but not limited to: where their nearest exit is located, awareness of the recommended meeting place (at least 200 feet away from the building), and ADA entrance/exit choices and stairwell area of refuge locations. This information is provided with emergency evacuation maps that are typically found in the corridor areas of our major buildings and can be reviewed at the EHS Webpage. EHS, through the Safety Committees and Liaisons, schedules the fire drills and acts as the coordination element with Electronics (fire alarm system maintenance) and UD Police (as necessary).



Typical Emergency Evacuation Map

Please contact EHS Fire Safety at 302-831-8475 or email [fire-safe@udel.edu](mailto:fire-safe@udel.edu) to schedule a drill or gain more information.

# Is My Trash Hazardous Waste?

*EHS is here with answers!*

When it comes to the definition of hazardous waste and chemical waste, it can become a little tricky.

Chemical waste is a broad term used by EHS that covers a variety of compounds. It includes hazardous wastes which are state and federally regulated substances. These can include your usual suspects such as chemical reagents, chemical waste from processes, and lab trash. However, hazardous waste also covers some household items like batteries, light bulbs, paints, fluids from your vehicle and even toner cartridges from printers. With all these categories and variations of hazardous waste it can be difficult to manage and dispose of it all. This is why we need your help!

Managing and disposing of hazardous waste incorrectly can lead to these materials getting into the environment, damaging labs and equipment, receiving severe monetary penalties, and worst affecting the health and safety of yourself and others. These are just a few reasons why managing waste here at UD is so important.

Dealing with waste found inside of a laboratory can be crucial for many obvious reasons. Waste can be chemically or biologically contaminated or even be radioactive. Trying to differentiate between hazardous lab trash and municipal trash found inside the lab can be pretty confusing at times. Anything that is contaminated or even possibly contaminated from the lab must be thrown into lab trash. This includes Kimwipes, nitrile/latex gloves, paper towels with paint, etc. Lab trash must be placed in the approved red metal solvent cans or any approved container with a lid. Depending on the hazard of the material fill out a waste request form from the EHS website and EHS will come by and collect the waste to dispose of it the proper way. Our website is also filled with great references to help you figure out what kind of waste it is and how to dispose of it. Whether waste is inside or outside the lab it needs to be managed properly.

If you have extra batteries don't just throw them in the trash. We have a recycling center right here on campus, in the south-west corner of the Hollingsworth parking lot.

Toner cartridges or color printer cartridges? Contact campus Delivery & Movers at 831-2157 for pick-up and recycling. Most manufacturers will also accept the empty color printer cartridges and help you dispose of them.

Old televisions, computers, DVDs, CD players, any other electrical equipment? Give Campus Delivery & Movers a call at 831-2157.

If you have any questions about what is considered hazardous waste and what needs to be disposed of through EHS, please call our office at 831-8475 or email us at [dehsafety@udel.edu](mailto:dehsafety@udel.edu).

Chemical waste must be in a sealed box with no waste exposed.



Hazardous waste must be placed in approved waste bins, lab trash boxes or red metal solvent cans

## Ergonomics

*It's time you stand up while working!*

More and more employees are finding themselves sitting at their desks for extended time periods throughout the workday without taking much-needed breaks from their computer and desk work. We often find ourselves so engrossed in our work that time often gets away from us and we stay in the same positions for hours at a time.

While it does not replace taking periodic breaks during the day, one way to help avoid staying seated for long periods of time is the use of sit-to-stand units. A recent study has shown that 78% of workers who have used sit-to-stand desks were more likely to report a pain-free day than those who used regular workstations.

Alternating between sitting and standing provides many benefits, such as reducing pressure on vertebrae, increasing circulation, aiding in reducing lower back pain, mood improvements, and ability to adopt a variety of good postures throughout the day. It is important, though, to make sure to alternate between the sitting and standing positions.

Each person is different, so the amount of time spent sitting/standing will vary depending upon the individual. Key aspects to keep in mind are to start slow with the amount of time that you are standing, using an anti-fatigue mat, ensuring that it is at the proper height while standing, and make sure to still move around during the day.

The Environmental Health and Safety Department has Varidesk and Quickstand units available for loan so employees can determine if it would be suitable for use before purchases are made.

For more information, contact EHS at [dehsafety@udel.edu](mailto:dehsafety@udel.edu) or 831-8475.



Sample Varidesk unit in the seated position.



Sample Varidesk unit in the standing position.



Sample Quickstand unit in the standing position.



## Ladder Safety

*Ladder tips for a safe and healthy Spring!*



With Spring officially here, now is a good time to review ladder safety as many of us will be using ladders to perform Spring activities such as cleaning gutters, trimming trees and large shrubs, painting and general maintenance. Why the concern for ladder safety? 21% of all fatal falls occur at a height of 10 feet or less, which certainly applies to household work.

Here are a number of items to consider when working from a ladder:

- Choose the correct ladder, either a stepladder or an extension ladder, and inspect the ladder for damage prior to use
- If using a stepladder it must be fully opened with the spreaders fully extended
- Do not stand on the top 2 steps of a stepladder
- Look overhead for any electrical hazards such as power lines, especially if using a metal ladder which should be avoided if possible
- Use ladders on a level and stable surface
- When climbing the ladder maintain 3 points of contact, 2 feet and a hand or 2 hands and 1 foot, keep your weight centered between the ladder's outside rails and face the ladder
- If using an extension ladder to access an elevated area, the ladder must extend at least 3 feet above the upper point of contact, which is the equivalent of 3 rungs
- Do not stand on the top 3 rungs
- An extension ladder must be placed at a 4 to 1 angle for maximum stability, that means the ladder must be angled 1 foot from vertical for every 4 feet of ladder height. If you have a smart phone, you can download a free app from NIOSH to perform the calculation for you [www.cdc.gov/niosh/topics/falls/mobileapp.html](http://www.cdc.gov/niosh/topics/falls/mobileapp.html)
- Be sure the locks on an extension ladder are both locked
- Select the correct ladder for the intended work load
  - Type III Light Duty up to 200 pounds
  - Type II Medium Duty up to 225 pounds
  - Type I Heavy Duty up to 250 pounds
  - Type IA Extra Heavy Duty up to 300 pounds



This picture demonstrates exactly how NOT to use a stepladder

## EHS Department News!

*We welcome three new employees!*



Brandon Calitree



Michelle Ferguson



Tony Haigler

Dr. Brandon Calitree has taken the position as the new Chemical Hygiene Officer. He joins us from the Academic side, here at the University. Brandon served as the Safety and Facilities Coordinator for the department of Chemistry and Biochemistry. Brandon completed his Post doctorate work at Penn State University and his Ph.D. at the University of Buffalo. Brandon will be managing the chemical hygiene program and the chemical hygiene committee here at UD.

We are happy to welcome UD alum, Michelle Ferguson as our new Biosafety Specialist. Michelle previously worked in a DNA sequencing lab at DuPont/Pioneer in Wilmington, DE. Michelle earned her bachelors in Biology here at the University. Michelle will be managing the bloodborne pathogens program, infectious waste, and autoclave and laminar flow equipment programs.

Tony Haigler has been hired as the Senior Technician for the Waste Program here on campus. Tony comes to the University from Dentsply Sirona where he managed the company's environmental program. Tony will manage, inspect, pick-up and bulk our University's waste from our Newark campus and satellite campuses like Lewes and Georgetown.

Our department is such an integral part of keeping the University safe and healthy and we know that our new hires will do their absolute best to uphold this commitment.

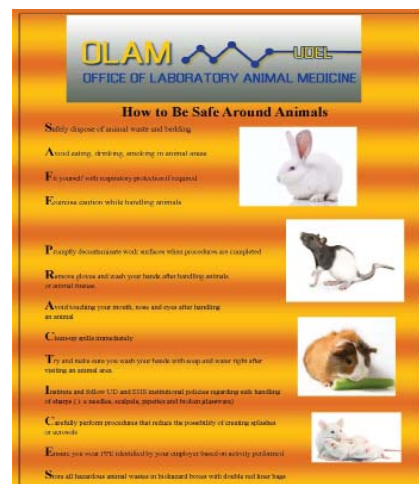
### Attention all Safety Beacon readers!

Feeling creative? We've got just the thing for you!  
The EHS annual safety poster contest!

Posters can be submitted by an individual, committee or department!

The only criteria we ask is for you to represent one of the topics listed below.

- Lab Safety
- Shop Safety
- Personal Home Safety



Last year's 1st place winner! OLAM Dept.

Posters must be submitted no later than 6/1/17. Please contact [dehsafety@udel.edu](mailto:dehsafety@udel.edu) for more information.