RAVE GUARDIAN

Enterprise Risk Management successfully launched Rave Guardian, a free mobile safety app, on August 1. It is available for all faculty, staff and students to download.

As part of the CMU Safe initiative, the Rave Guardian Mobile App turns your smartphone — Android or iPhone — into a safety device. Its features allow you to receive CMU-Alert emergency messages — even when you don't have cell service.

One of the more valuable features of the mobile app is the safety timer, which allows users to notify designated individuals of their location via Google Maps, and how long they intend to be there. Designated individuals can be anyone the user selects from their contacts list. If the timer is not deactivated after the designated time period, designated individuals will be alerted to call the user or University Police. Designated individuals will receive notifications via a website if they have not downloaded the app.

Another great feature is the emergency call button. By tapping the emergency call button on your phone, users are directly put in touch with University Police. Lt. Joseph Meyers, University Police, said the CMU police force is excited about the app and grateful to Enterprise Risk Management for leading its development and implementation at CMU.

“If a student, faculty or staff member is in trouble, the app provides an immediate lifeline to University Police and can get them help very quickly. I implore all CMU community members to download the app,” Meyers said.

The app also provides you with a directory of important university resources that you can simply tap to make a call. The directory includes University Police, University Health Services, Counseling and Psychological Services and the Employee Assistance Program. In addition, it has a list of helpful links to the CMU escort service, the CMU shuttle bus tracker and an interactive map to the AED devices on campus.

The Rave Mobile Guardian App can be downloaded from the Google Play Store or Apple App store. More information and answers to frequently asked questions are available on the CMU-Alert website at www.cmu.edu/alert.
NATIONAL PREPAREDNESS AND CAMPUS FIRE SAFETY MONTH

In collaboration with University Police and Student Affairs, Enterprise Risk Management hosted a series of events throughout the month of September that coincided with National Preparedness and Campus Fire Safety Month. Over 300 students, faculty and staff were provided with active shooter training, fire and life safety information, hands-on training opportunities and fun activities.

On September 4, members of EHS hosted Jeopardy-style fire safety trivia in the CUC. Participants were encouraged to answer trivia questions that were designed to raise awareness and prompt discussions regarding important fire safety concepts, ranging from basic fire safety and fire prevention to evacuations and fire-fighting equipment. Trivia questions included:

- What are the elements needed to start and sustain a fire?
- What are the first things you should do if you observe a fire?
- How should you check for fire on the other side of a door?

On September 10 and 18, members of EHS hosted hands-on fire extinguisher training. Participants were able to test their fire-fighting skills by using water-filled fire extinguishers to extinguish a simulated fire. Participants were also educated on important fire-fighting techniques, such as:

- Proper operation of a fire extinguisher,
- Aiming the extinguisher at the base of a fire, and
- Facing the location of the fire while backing away after extinguishing it in order to observe a possible re-ignition.

On September 24, members of the campus community had the opportunity to view *After the Fire*, the documentary about the Seton Hall dormitory fire that occurred on January 19, 2000. Alvaro Llanos and Shawn Simons, who were two of the most severely burned students, were on-hand to share their emotional story and talk about the importance of fire alarms, sprinkler systems, escape planning and the effects of pranks.
LITHIUM ION BATTERY SAFETY

Lithium-ion batteries are used widely across the Carnegie Mellon University campuses. These batteries are found in consumer electronics, power tools and many research devices requiring portable electrical power. They are often chosen by researchers for advantages that include light weight, higher energy density, low memory effect and longer life span. However, there is a risk of fire due to the flammability of the electrolyte in lithium-ion batteries.

Possible causes of lithium-ion battery fires include: over charging or discharging, unbalanced cells, excessive current discharge, short circuits, physical damage, excessively hot storage and, for multiple cells in a pack, poor electrical connections.

If the cells and batteries are correctly handled, the risk of fire is very low. Follow these best practices for lithium-ion cell/battery use in order to prevent incidents:

• Attend an in-class training course that is designed to educate users of Lithium Ion Batteries (LIB) on the safe use, proper charging, safe discharge, safe disposal and personal protective equipment. Users can sign up for available training session through BioRaft. 
  https://cmu.bioraft.com/raft/training/courses
• Always purchase batteries from a reputable manufacturer or supplier.
• Be sure to read all documentation supplied with your battery.
• Never burn, overheat, disassemble, short-circuit, solder, puncture, crush or otherwise mutilate battery packs or cells.
• Always inspect batteries for any signs of damage before use. Never use and promptly dispose of damaged or puffy batteries.
• Do not reverse the polarity.
• Do not mix different types of batteries or mix new and old ones together.
• Do not open the battery system or modules unless you have training and permission.
• Do not submit to static electricity risks to avoid damages to the Protecting Circuit Board.
• Immediately disconnect the batteries if, during operation or charging, they emit an unusual smell, develop heat, change shape/geometry or behave abnormally.
• If the battery is on fire, use a water or ABC extinguisher. When there are no more visible flames, use water to cool down the battery to avoid re-ignition.
• Contact EHS office for disposal of damaged batteries at: safety@andrew.cmu.edu.

Carnegie Mellon University
Environmental Health and Safety
PRINCIPLES OF BIOSAFETY

Biosafety practices are used in the proper handling of biohazardous organisms. Biohazardous organisms are microorganisms with an infectious potential for humans, animals and plants in the environment. Human, animal and plant materials may harbor biohazardous organisms or agents and such materials must be handled accordingly.

TWELVE VALUABLE RULES OF BIOSAFETY

1. All persons working with biological agents and/or animals, either in a classroom or laboratory setting are required to attend Biological Safety Training. Training sessions are available through BioRaft: https://cmu.bioraft.com/raft/training/courses.

2. Know and understand the biology and infectious potential of biohazardous agents you handle.

3. Handle all biological material (tissues and body fluids) as if the infectious agent is present.

4. Always use good standards of microbiological practice in handling biohazardous agents, materials or any microorganism.

5. Use the biosafety level containment and practices specified for the infectious agent by CDC.

6. Do not work with a microorganism or agent if the required level of physical containment designated for the biohazardous material being used is not available.

7. Each person handling biohazardous material is responsible for following safety rules to prevent any injury.

8. Vigilance and monitoring of biosafety practices are essential in any biosafety program.

9. Assume that accidents will occur and plan for safely managing those events when handling biohazardous materials and agents.

10. Report all accidents or incidents to your PI/supervisor immediately.

11. Use disinfectants or sterilants with proven efficacy against the specific biohazardous agent(s) you are using.

12. Never permit biohazardous materials to leave the laboratory unsterilized unless being transported to another laboratory for additional work and packaged according to appropriate regulations. ◆
ACCIDENT PREVENTION AND REPORTING

Accident prevention is a large part of workplace safety and is everyone’s responsibility. CMU community participation is essential to ensuring that safety hazards are identified, addressed and accidents are prevented before they occur. Preventing accidents can be completed through:

• Hazard identification and assessment
• Hazard prevention and control
• Education and training
• Program evaluation and improvement

If an accident does occur, no matter how slight, it should be reported. Reporting all accidents and injuries provides a learning opportunity, a chance to identify root causes and to implement corrective actions. The following flow chart can be used to determine actions following a work-related injury or illness to any CMU employee. Additional information can be found on the EHS website: https://www.cmu.edu/ehs/Workplace-Construction/accident-prevention.html.
As the air turns cooler and leaves drop from the trees, it’s important to keep a few important fall safety tips in mind. With proper precautions and safety awareness, you can enjoy that crisp autumn weather while avoiding some of the risks that come with the season.

When the weather turns cold most people spend more time inside their homes, apartments or dormitories using fireplaces, furnaces, and heaters to keep warm. There’s nothing quite as cozy as a warm house, but keep these tips in mind.

**Service Your Furnace:** Before the cold autumn and winter weather sets in, have your furnace serviced. A specialist should inspect the furnace to make sure everything is in working order and that there are no leaks.

**Use Fireplaces Safely:** Keep that fire in its proper place by using a fireplace screen to keep sparks from flying out of the fireplace. Never leave a burning fire unattended, and make sure a fire in a fireplace is completely out before going to bed.

**Use Caution with Space Heaters:** A space heater can be an effective way to warm up a chilly room, but it’s essential that you read the instructions on the unit before you use it and always allow at least three feet of empty area around space heaters.

**Exercise Candle Caution:** Candles are a great way to give a room that warm glow, but they can also cause fires. Never leave candles burning while you sleep. Consider flameless candles.

**Change Smoke Alarm Batteries:** Change the batteries in your smoke alarms and carbon monoxide detectors when you turn back your clocks for Daylight Saving Time. Make sure to check the alarms with the new batteries installed. Check and replace any home fire extinguishers that have expired.

**Be Aware of Poor Visibility:** Falling leaves, while beautiful, can obscure your vision, as can rain and fog. Shorter days are part of the fall season, making it darker and more difficult to see. Be aware of limitations in your visibility, and slow down if you can’t see well. If possible, try not to be on the roads when it’s hard to see.

**Slow Down on Wet Pavement:** Rain is common during the autumn. If it’s raining, keep a safe distance from the car in front of you. Wet roads make it more difficult to stop. When wet leaves are on roadways, they make the pavement slippery, and it can be difficult for you to get good traction.
Rebecca Cicco has been promoted to EHS Workplace Safety Senior Manager reporting, to the EHS Director, Dr. Shailendra Singh. This is a new role within a new organizational structure that elevates the Workplace Safety team within the EHS organization. Rebecca joined Carnegie Mellon University in 2014 as the Workplace Safety Manager. She is a Certified Safety Professional with a Masters in Safety Science from Indiana University of Pennsylvania. She was recently awarded the 2019 Andy Award for Teamwork and Collaboration for her work on the Student Activities Maker Support Team. Please join us in congratulating Rebecca on her new position and University recognition.

John Mayhoff recently joined the Enterprise Risk Management team as the new Emergency Preparedness and Response Specialist. John is new to CMU and new to Pittsburgh – he and his family recently relocated to the area from Philadelphia. John brings 10 years of experience in emergency management with the United States Air Force. Most recently, he served as the Installation Emergency Manager for the 166th Air Wing, Delaware Air National Guard. Prior to that, John served on the response side, as the Survey Team Chief for the 31st Weapons of Mass Destruction Civil Support Team. Please join us in welcoming John to the CMU community.
Help ensure the safety and well-being of the CMU community by calling:
University Police: 412-268-2323
Ethics Hotline: 1-877-700-7050  

Carnegie Mellon University
Environmental Health and Safety

WORD SEARCH ANSWERS

EHS WOULD LIKE TO HEAR FROM YOU!

We encourage all members of the Carnegie Mellon University community to submit safety improvement ideas that impact your personal safety on campus or the safety of the greater community. Your participation will help raise safety awareness in our community! Please submit your safety concerns/ideas to: safety@andrew.cmu.edu.

In addition, if you have any suggestions for the next newsletter, please submit your ideas to Mary Sickles at: msickles@andrew.cmu.edu.

SEE SOMETHING? SAY SOMETHING

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CMU SAFE
See Something. Say Something.