

2025

SAFETY FIELD GUIDE

Environmental Health & Safety

FIRST EDITION



**In case of EMERGENCIES or "after hours" incidents
CALL 911 or notify the campus Police Department
Emergencies (910) 672-1911**

SAFETY GUIDE PURPOSE

This Safety Field Guide is designed to answer general questions regarding workplace safety and hazard prevention to protect employees from job related injuries or illnesses. Employees should keep this handbook easily accessible in their workplace.

Employees should consult their supervisor for instructions when a situation is encountered that is not covered by this handbook or job specific training. Supervisors should ensure that the most recent version of the handbook is available to employees.

This guide contains some of the highlights of the Safety and Health Regulations for general industry and construction under North Carolina Occupational Safety and Health Act (NCOSHA) and other regulatory groups. This guide may help employees identify and prevent common hazards that may be present in the workplace but is not a complete safety manual.

The Field Guide provides safety guidelines and tools. Consult this guide before performing potentially hazardous work. The Field Guide is not all-inclusive. Before performing tasks, consult your supervisor, Standard Operating Procedures (SOPs) or Environmental Health and Safety professionals for specific safety guidelines. Make safety a part of everything you do – for your safety and the safety of those around you.

This Field Guide Belongs to:

I understand my responsibility to actively contribute to the safety culture of Fayetteville State University and will commit to always ensuring the safety of myself and my co-workers.

Name

Signature

Did you know that 80-90%, of accidents across various industries are attributed to human error?

***STOP! THINK!
THEN ACT!***

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SECTION 1 – GENERAL INFORMATION

Our Mission

As an Environmental Health and Safety (EHS) professional at Fayetteville State University (FSU), we are dedicated to the continuous enhancement of our safety programs and practices. FSU has embarked on a comprehensive journey to elevate safety standards across our campus community. This commitment involves rigorous risk assessments, regular safety audits, and the implementation of comprehensive safety protocols to identify and mitigate potential hazards in all aspects of our operations.

Our Policy

Beyond compliance Fayetteville State University is actively promoting a culture of safety. We believe that safety should not be just a priority, but a way of life. One of our key priorities is to implement updated safety standards that align with industry best practices and regulatory requirements through the continuous improvement of its Environmental Health and Safety (EHS) programs

- Comply with the Occupational Safety and Health Act (OSHA) of North Carolina, as well as all applicable federal, state, and local regulations and codes.
- Identify and mitigate potential hazards through rigorous risk assessments and regular safety audits.
- Implement updated safety standards and practices that align with industry best practices.
- Address specific areas of concern, including chemical, biological, and radiation safety, and ensure compliance with all relevant guidelines and regulations.
- Provide extensive safety training programs to empower faculty, staff, and students with the knowledge and skills necessary to maintain a safe environment.
- Require contractors, vendors, and external service providers working on campus to comply with all FSU EHS policies and applicable safety regulations.

FSU recognizes that safety is a collective responsibility and promotes an integrated, cross-disciplinary approach to safety management. If any task cannot be performed safely, it must be halted and adjusted to ensure it can be conducted without risk.

Through safety awareness campaigns, recognition programs, and continuous improvement initiatives, FSU is committed to fostering a culture of proactive safety and health awareness among all members of the University community.

How To Report A Hazard

A hazard is any object, situation or behavior that has potential to cause injury, illness or damage to property or the environment. When you see a hazard, immediately report it as follows:

1. Immediately notify your supervisor of any know health or safety hazards.
2. Submit a Work Order in FSU's online system for the hazard to be addressed.
3. If the hazard is not resolved with your supervisor, report the hazard to EHS by sending an email to safety@uncfsu.edu.

How to Report A Mishap

All faculty or staff must immediately report all accidents or injuries to their supervisor. If your supervisor is not available, contact the Workers Compensation Administrator "WCA" in the office of Human Resources

(910) 672-1823 - (910) 672-2461 - (910) 672-1146

**In case of EMERGENCIES or "after hours" incidents CALL 911
or notify the campus Police Department at (910) 672-1911**

For Non emergencies call (910) 672-1775

If medically necessary, you will be taken or sent to the medical network provider listed below after obtaining a medical authorization from the WCA.

Concentra Urgent Care, 1702 Owen Drive, Fayetteville 28304

(910) 323-3184 - (910) 491-5846 Fax

Cape Fear Valley Medical Center, 1638 Owen Drive, Fayetteville NC 28304

(910) 401-5688

The Office of Human Resources WCA will notify you regarding required documentation and the additional steps for your workers' compensation claim.

The supervisor must submit the "Supervisor Incident Investigation Report" within 24 hours to the University's WCA and EHS.

Supervisor must provide the employee with the "Employee Statement of Injury Form" and ensure that it gets completed and submitted to The University's WCA and EHS within 24 hours.

**Exceptions might be made in cases of emergencies, incidents occurring during the weekends or, after hours, and/or when the employee remains out of work due to the incident, injury, or condition.*

The supervisor shall notify the University's WCA of any changes in the employee's medical status, or any absences due to the incident, injury, or condition.

If necessary, identify modified duties and collaborate with the University's WCA to provide reasonable accommodation.

Maintain periodic contact with the employee and with the University's WCA for effective and efficient management of the case.

All forms are available at <https://www.uncfsu.edu/faculty-and-staff/departments-and-offices/office-of-human-resources/benefits> or request them to the EHS department.

Training

Education and training are important tools for informing staff about workplace hazards and controls. This enables all employees to work more safely and be more productive.

Another role of education and training is to provide a greater understanding of the safety and health program itself so that employees can contribute to its development and implementation. Education and training provides employers, managers, supervisors and workers with:

- Knowledge and skills needed to do their work safely and avoid creating hazards that could place themselves or others at risk.
- Awareness and understanding of hazards and how to identify, report and control them.
- Specialized training when their work involves unique hazards.

Additional training may be needed or required depending on the roles assigned to employers or individual managers, supervisors and workers, when a new process or machinery is introduced in the workspace.

Effective training and education can be provided outside a formal classroom setting. Peer to peer training, on the job training and on the job demonstrations can be effective.

Safety Committee

The Health and Safety Committee of Fayetteville State University is responsible for identifying and analyzing new or existing hazards, conditions, and/or operations to promote safety awareness and minimize unsafe behaviors and conditions across FSU.

The Health and Safety Committee incorporates both management and employee representation. This committee will function as a collaborative body, leveraging the combined expertise and resources of the university community to promote a safe and healthy working and learning environment across all campus operations.

Position Responsibilities

Unit Heads / Supervisors

- Provide a healthy and safe working environment for their employees.
- Remind employees to report hazardous conditions to their Supervisors and EHS. Hazardous conditions include but are not limited to fires, hazardous chemical spills, unsafe behaviors and damaged / malfunctioning equipment.
- Promptly investigate work related injuries, near misses, property damage, incidents and reports of hazardous conditions.
- Ensure that employees attend safety training.
- Provide personal protective equipment and job-specific safety training

Employees

While performing their duties, employees are responsible for complying with this Policy, EHS procedures, posted safety requirements and work practices. Employees should notify their immediate supervisor, as soon as possible, of unsafe working conditions, potential hazards, and accidents.

a. Employee Rights

- Participate in the safety and health program.
- Be trained in hazard recognition and safe work practices.
- Be informed of unsafe or unhealthful conditions.
- Refuse to work if imminent danger exists or if it is believed to exist.
- Be free from reprisal or retaliation by a supervisor or other manager because personnel exercised any right under the Occupational Safety and Health Administration (OSHA), such as reporting unsafe conditions, mishaps or injuries.
- Be provided all required PPE to perform work tasks safely.

b. Responsibilities

- Report any known or potential hazards.
- Follow safety rules and use safe work practices so employees do not endanger themselves, bystanders or coworkers, or infringe upon the rights of other workers.
- Wear, clean, maintain and use prescribed personal protective equipment (PPE) for work that requires such equipment.
- Do not engage in "horseplay" while working.
- Do not remove or attempt to disable any equipment safety devices.
- Do not operate any equipment without proper instructions, training or authorization.
- Attend scheduled safety and occupational health-related training.
- Actively look for and report unsafe or unhealthful conditions that pose a hazard to themselves or others.
- Report mishaps, injuries, illnesses and near misses to their supervisor immediately.

Students and Visitors

The University recognizes its responsibility to provide a healthy and safe environment for students and visitors. Students and visitors are responsible for adhering to all posted safety requirements and complying with any protocol of which they might be informed by University officials. The University encourages students and visitors to report unsafe conditions to EHS.

SECTION 2-HAZARD IDENTIFICATION AND MITIGATION

Step 1: Identify Hazards

Safety hazards



Slips, trips,
and falls



Machinery



Electrocution

Biological hazards



Bacteria
and viruses



Contaminated
waste



Animal
droppings

Ergonomic hazards



Poor posture



Heavy lifting



Improper
work station

Physical hazards



Radiation



Extreme
weather



Extreme noise

Chemical hazards



Unlabelled
liquids



Flammable
substances



Harmful
gases

Workload hazards



Workplace
violence



Confrontation

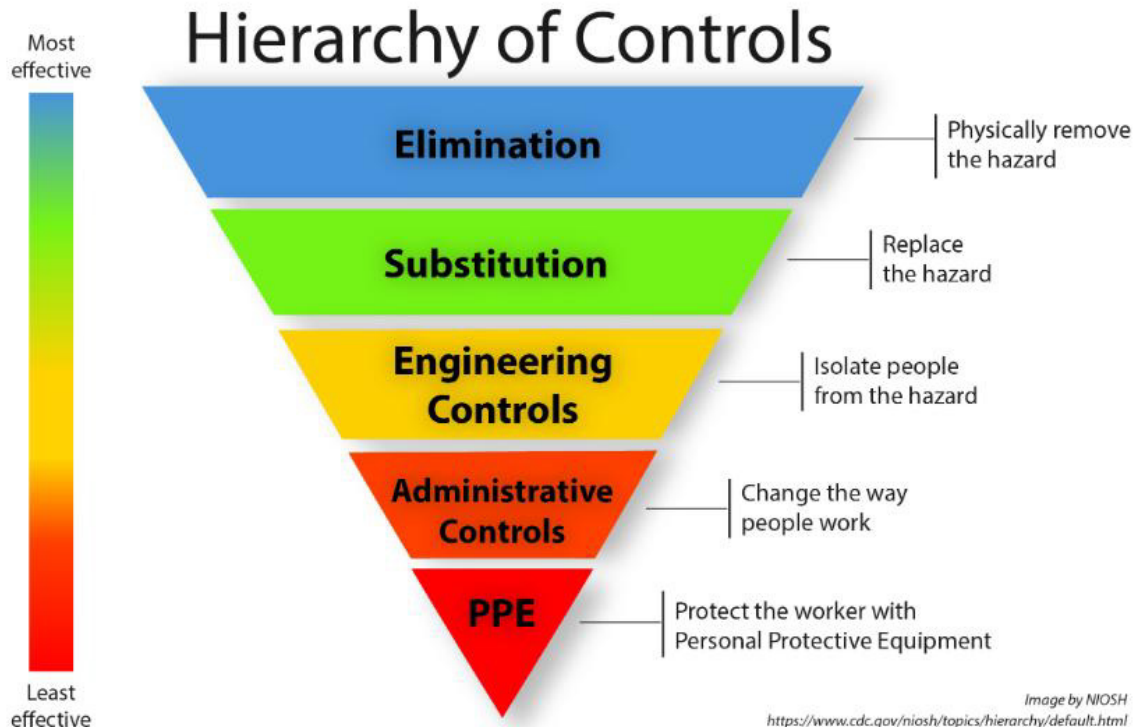


Flexibility

Step 2: Assess Hazards

Evaluate and determine the impact of the identified risks and how they can affect the safe completion of the job.

Step 3: Establish Controls



If you are unsure how to control a hazard, PAUSE and talk to your supervisor.

Step 4: Monitor Effectiveness

Verify that controls are effective for the entire duration of the job.

Guidelines to Mitigate Mechanical Hazards

- Read the manufacturer's instructions on how to operate the machine safely and correctly.
- Always be sure that moving mechanisms are clear of people and objects.
- Be sure that workers are not wearing any jewelry or loose clothing that could get snagged in the machine.
- Keep an eye on overhead moving parts, like pulleys, for potential hazards.
- Check that guards are in place at all points where you could contact moving parts before turning the machine on.
- Be aware of how to turn power on and off if you should have to do so quickly.
- Feed material into the machine with push sticks, not your hands.
- Pause. Rushing through a job is one of the major causes of accidents.
- Make sure maintenance is performed when required. If you think your equipment might have missed its scheduled maintenance let your supervisor know.
- Use lock out/tag out procedures when equipment needs repair or maintenance.
- Turn equipment off, and lockout the power to the equipment and tag it so no one tries to use it

Guidelines to Mitigate Electrical Hazards

- Assume that all overhead and underground wires are energized at lethal voltages.
- Never assume that a wire is safe to touch even if it is down or appears to be insulated.
- Never touch a fallen overhead power line. Call 911 or the electric utility company to report fallen electrical lines.
- Stay at least 10 feet (3 meters) away from overhead wires during cleanup and other activities. If working at heights or handling long objects, survey the area before starting work for the presence of overhead wires.
- Always inspect electrical components of tools and equipment for damage before operation. Tag damaged equipment with a "Do Not Operate" tag.
- Never operate electrical equipment while you are wet or standing in water.
- Never repair electrical cords or equipment unless qualified and authorized.
- If working in damp locations, inspect electric cords and equipment to ensure that they are in good condition and free of defects, and use a ground-fault circuit interrupter (GFCI).
- Energized work is only permitted by qualified electrical workers and only under very specific circumstances.

Guidelines to Mitigate Pressure Hazards

Pressure is continuous physical force exerted on or against an object by something in contact with it.

- Never assume that a pressurized system is depressurized.
- Always evaluate surroundings for conditions that may present pressure hazards. Some things to look for: piping systems, particularly those with pressure gauges; cables, ropes, chains in a taut condition; compressed gas cylinders; hydraulic systems and piping; tree branches bent over from snow or ice.
- When working around pressurized systems, equipment or objects, avoid the "line of fire" (the expected path of uncontrolled energy).
- Place barricades to prevent access to areas containing hazardous pressure sources.

Steam Safety

Working safely with steam systems involves properly selected equipment, regular equipment inspection and maintenance, safe work procedures, PPE and employee training. The steam lines located in the central utility plants, mechanical rooms and in the steam tunnels are under tremendous pressure. Steam is particularly hazardous due to its high pressure and temperature (as high as 150psi and 366°F). If a person were to be in the line of fire, severe injury is certain.

Compressed Gas Cylinders

Cylinders must be secured to prevent tip over when in use, transported, moved or stored. When stored, flammables and oxygen must be separated by a ½ hour fire-rated wall or by 20 feet. Valve protection caps must be in place before being transported, moved or stored. All cylinders must be secured with a chain or strap to a wall, or other sturdy support, and must be clearly labeled to indicate whether they are full, in use, or empty.

Guidelines to Mitigate Health Hazards

In order to mitigate health hazards associated with occupational exposure to hazardous substances and conditions, the following programs are active.

- **Asbestos Safety Program:** For materials containing more than one percent (>1%) asbestos.
- **Chemical Hygiene and Hazard Communication Plan:** Measures to prevent employee exposure to hazardous chemicals include the use of proper engineering controls, work practices and protective equipment.
- **Hearing Conservation Program:** When engineering and administrative controls are not successful in lowering noise exposure, hearing protection devices must be used. Employees exposed to operations where noise levels are 85 dBA as an 8-hour time-weighted average or more must be covered under the hearing conservation program
- **Respiratory Protection:** Employees who wear a respirator must be given prior approval by EHS. Before a respirator is issued, a workplace assessment is conducted to identify harmful airborne hazards

Guidelines to Mitigate Ergonomic Hazards

Musculoskeletal disorders (MSD's) affect the body's muscles, bones, ligaments, tendons and nerves. When the mismatch between the physical requirements of a job and the employee's physical capabilities, MSDs can result. To avoid sprains and strains, it is recommended that employees warm up and stretch prior to physical exertion.

Ergonomics is the science of comfort (fitting the job to the worker). Where feasible, the workplace should be evaluated to reduce the following risks factors:

- **High Task Repetition:** Many work tasks are repetitive in nature and frequently controlled by work processes. High task repetition, when combined with other risks factors such as high force and/or awkward postures, can contribute to the formation of musculoskeletal disorders.
- **Forceful Exertions:** Many work tasks require high force loads on the human body. Muscle effort increases in response to high force requirements, increasing associated fatigue which can lead to musculoskeletal disorders.
- **Repetitive/Sustained Awkward Postures:** Awkward postures place excessive force on joints and overload the muscles and tendons around the affected joint. Avoid reaching, twisting, and bending, keep the torso in a neutral posture with shoulders in line with hips and feet. Keep the arms close to the body. Use reach assist tools and step stools. Break tasks into steps to minimize twisting and bending

Be sure to report any work – related discomforts to a supervisor. Here are some tips to prevent any MSD's related discomforts:

- If most of the day is spent sitting, stand every hour, move around and stretch.
- If a repetitive or static job results in an awkward position, try to find a better way to accomplish it

Computer Workstations

Here are some suggestions on how to set up your work station to your specific needs:

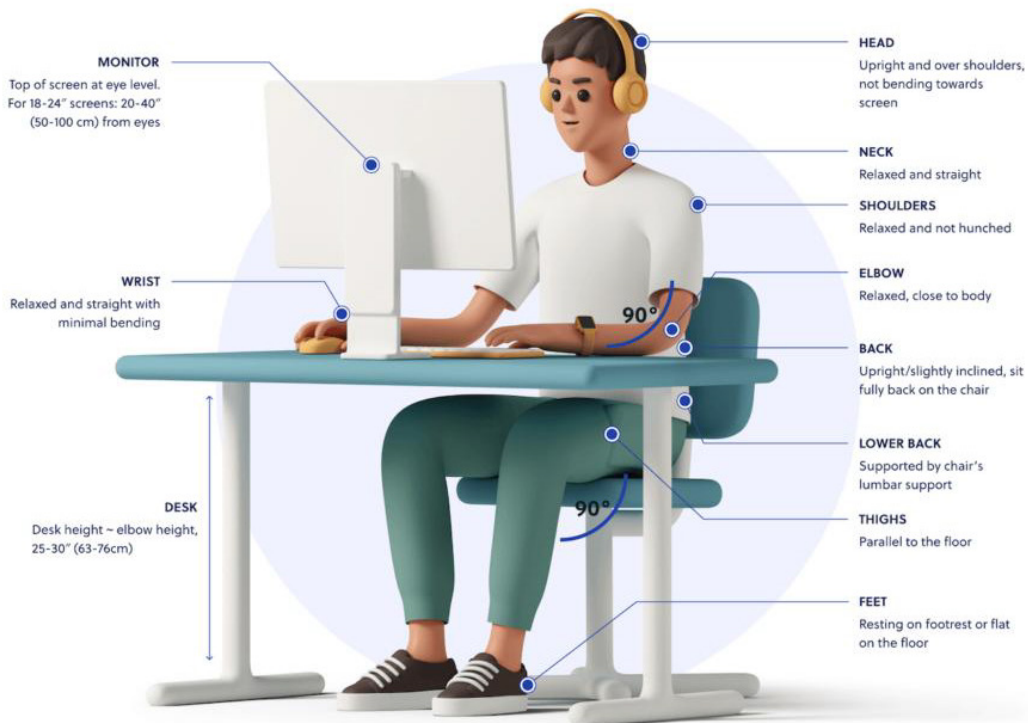
1. Adopt a neutral posture, sit with lower back against the chair.
2. Adjust desk height or chair so that elbows are bent at right angles and forearms are approximately parallel to the floor.
3. Upper legs parallel to the floor and feet flat on the floor, If legs are not parallel to the floor you need a footrest.
4. Keep wrists neutral by using a wrist rest that is the same height as the keyboard.
5. Position monitor directly in front of face, approximately an arms length away, with the top of the screen at or slightly below eye level.

** If working with a laptop have in mind that laptops are designed for short-term use—ideally no more than 4 hours. If you're using a laptop for extended periods (6–8 hours), it's crucial to adjust your setup to prevent musculoskeletal strain or injury.*

To set up your workstation you'll need:

- An additional screen, if not possible an ergonomic laptop stand.
- An external keyboard and mouse.

The Ergonomic Workstation



Source: quidlo.com

Ergonomic Evaluation

University employees can request an ergonomic evaluation, ergonomic training, workstation evaluation or a risk assessment survey from Environmental Health and Safety (EHS). This evaluation will provide the following services:

1. Perform on-site and online evaluation of employee's workstations.
2. Recommend ways to minimize or control ergonomic stressors.
3. Provide training/information about ergonomics, as well as product information.

Guidelines to Mitigate Struck by or Against Hazards

Struck-by or against injuries result from forcible contact or impact between a person and an object or piece of equipment.

Secure Objects and Equipment

- When assembling or disassembling equipment, furniture, etc., ensure there are no loose objects or materials that could fall uncontrolled.
- Remove or secure items that could swing or fall from loads being lifted or moved.
- All canopies have to be safely secured, there is a combination of strategies available including using the right canopy, using weights or sandbags, employing guy lines and ensuring level base.

Install Barricades

This prevents access to areas in which falling objects are anticipated. Barricade and/or use a spotter to prevent employees from walking under an aerial lift, below scaffold work platforms or below employees working on ladders.

Power Tool Safety

- Ensure guards are on power tools and equipment that generate flying objects (grinders, saws, drills, etc.)
- Wear appropriate personal protective equipment when using hand and power tools.
- Secure workpiece in a vise or other method.

Safe Work Area

- Ensure materials are properly stored in designated areas on appropriate racks and piles. Do not lean materials against walls, where they can fall, or place on floor where they could pose a tripping hazard.
- Observe the work area for protrusions or obstructions in the walkways or working area (i.e. low hanging pipes, support beams, etc.). Apply padding or highly visible markings.
- Ensure walkways and work areas are adequately illuminated.
- Ensure vehicles and mobile equipment are secured when parked to prevent unintentional movement: parking brake, wheel chocks.

Guidelines to Mitigate Temperature Hazards

Heat-Related Illness

Heat-related illness is preventable. Workers who have not spent time recently in warm environments and/or been physically active will need time to build tolerance to the heat.

- Supervisors should encourage employees to consume adequate fluids (water and sport drinks), take frequent breaks and quickly identify heat illness symptoms.
- Other options for keeping body temperatures down include making changes to workload and schedules. For example, slow down physical activity by reducing manual handling speeds, scheduling work for the morning or shorter shifts with frequent rest breaks in the shade or away from heat sources.

Cold-Related Illness

In cold temperatures, your body loses heat faster than it can produce heat. Prolonged exposure to cold will eventually use up your body's stored energy, resulting in hypothermia (abnormally low body temperature). Hypothermia can also occur at temperatures above 40°F if a person becomes chilled from rain, sweat or submersion in cold water.

- Be sure the outer layer of your clothing is tightly woven and preferably wind resistant. Wool, silk or polypropylene inner layers of clothing will hold more body heat than cotton.
- Stay dry. Wet clothing chills the body rapidly. Excess perspiration will increase heat loss, so remove extra layers of clothing whenever you feel too warm.
- Do not ignore shivering. It is an important first sign that the body is losing heat. Persistent shivering is a signal to return indoors.

Thermal Hazards

Precautions such as shielding and/or PPE are necessary for tasks and operations that generate or involve exposure to very high or low temperature objects, materials and surfaces. Examples include, hot surfaces following welding, cutting or soldering; working with cryogenic liquids (i.e. liquid nitrogen); etc. Signs should be posted to warn others of thermal contact hazards.

Guidelines to Mitigate Vehicle Hazards

Stay Driving

- The driver and passengers shall wear a seat belt at all times.
- Be well-rested before driving.
- Avoid medications that cause drowsiness.
- If you are impaired by alcohol or any drug, do not drive.

Stay Focused

- Driving requires your full attention. Avoid distractions, such as adjusting the radio or other controls, eating or drinking, and phones.
- Continually search the roadway to be alert to situations requiring quick action.
- For long trips, stop about every two hours to stretch, walk and stay refreshed.

Avoid Aggressive Driving

- Remain calm in traffic.
- Be patient and courteous to other drivers.
- Do not take other drivers' actions personally.
- Reduce your stress by planning your route ahead of time (bring the maps and directions), allowing plenty of travel time, and avoiding crowded roadways and busy driving times.

Backing Vehicles

- When possible, avoid the need to back vehicles by parking in a manner to allow the first move to be forward.
- When a second person is available, use them as a spotter. When alone, drivers should get out and look before backing.

Guidelines to Mitigate Utility Cart Hazards

Operators must:

- Be an authorized Fayetteville State Employee.
- Be at least 18 years old.
- Hold a valid driver's license.
- Complete Utility Cart Vehicle specific training.
- Obey all traffic laws, rules, and regulations while operating on any street.

DO NOT operate utility carts on any street or highway that has not received prior approval or have not been closed to normal vehicle traffic.

Pre-Operation Safety Checks

As the cart operator always performs a safety check on the entire cart before use. This includes:

- **Fluids:** Check for leaks.
- **Tires:** Ensure proper air pressure.
- **Controls:** Test brakes, acceleration, and steering.
- **Lights & Horn:** Confirm functionality.

Driving Rules & Behavior

- The use of phones or headphones is strictly prohibited while driving. If you need to make or receive a call, pull over in a safe area.
- Always yield to pedestrians.
- Never carry passengers in the cargo area.
- Any significant accident involving a utility cart must be reported to EHS including damage to the cart, property damage, or injury to a person.
- Accidents resulting from violations of safety policy may lead to disciplinary action.
- Watch for hazardous road conditions (mud, sand, wet pavement, or greasy areas).
- Do not "cruise" through intersections or walkways, even if you are familiar with the area. Always look in all directions before proceeding.

- Do not stop the cart on crosswalks, in front of doorways, on sidewalks, or near fire hydrants, fire lanes, or access ramps for people with disabilities.
- Park only in designated areas.
- Do not drive under the influence of alcohol, drugs, or drowsiness-inducing medications.
- Avoid horseplay.
- Drive only on designated roads or paths—not sidewalks or grass.

Rules of the Road

- All occupants must keep their hands and bodies inside the cart. Remain seated until the cart comes to a complete stop—no jumping or stepping out while it's moving.
- Never carry more passengers than the number of available seats.
- Operators must obey all traffic signals and use directional lights or hand signals when turning.

Avoid Aggressive Driving

- Be calm, patient, and courteous.
- Don't take other drivers' actions personally.

Backing & Parking

- Avoid backing up unless necessary.
- Use a spotter when available.
- If alone, get out and look before backing.
- Always remove keys when the cart is unattended.

Operational Limits

- **Speed:** Maintain safe speeds (typically under 15–20 mph).
- **Passenger Limits:** Do not exceed seating capacity.
- **Cargo:** Secure and balance loads properly.
- **Terrain:** Avoid steep slopes, rough terrain, and wet areas.

Guidelines to Mitigate Slips, Trips and Falls

Slips, trips and same level falls can occur anytime. To help prevent potential accidents and injuries:

- Wear proper footwear that is appropriate for the conditions. On smooth or wet surfaces, always wear shoes with slip resistant soles.
- Slow down, shorten your stride and use caution when walking on wet or slippery surfaces.
- Poor lighting can impair vision and increase the likelihood of slipping, tripping and falling.
- Report non-functioning lights, as well as walkways and work areas that are too dark.
- Be alert for uneven surfaces (potholes, speed bumps, platforms, doorways, cover plates, soft patches, curbs and elevator thresholds, etc.).
- Don't leave loose objects on walking surfaces, working surfaces or stairways.
- Never leave water or oil spills unattended. If they can't be cleaned up immediately, set up a barrier so that people know about the hazard.

- Always use a ladder or step stool. Never stand on a chair, desk, shelf, crate, box or any other unstable items to reach something. If you must routinely reach items in high locations, purchase a ladder or step stool.
- Report or repair loose or damaged handrails, stairway treads, mats and walkway runners. Even a small worn spot can cause a trip.
- When walking, don't carry loads that block your vision. If you can't see where you are going, a trip and fall is inevitable.
- Post signs to warn of hazardous areas. For example, paint edges where elevation changes occur with yellow paint to alert of the change in elevation; place 'wet floor' signs.
- Use handrails in stairways to avoid falls.
- Report any unprotected floor openings. These openings can cause very serious falls.

Working at Heights

Employees shall be protected with a passive or active fall protection system when working at a height of 4 feet or greater from the surface below. Keep away from the edge of unprotected roofs and elevated work surfaces.

Guidelines to Mitigate Chemical Hazards

When people think of chemicals, it often evokes images of laboratories. But, in reality, chemicals are also found in many of the products we use at home and at work. While they have a variety of beneficial uses, chemicals can also be extremely hazardous if misused or mishandled. OSHA's Hazard Communication Standard (HCS) defines a hazardous chemical as "any chemical which can cause a physical or a health hazard." With so many hazardous substances at work, it's important to know how to identify common workplace chemical hazards – and how to avoid them.

Hazardous substances must include warning labels and Safety Data Sheets (SDS) with their products as chemical hazards and toxic substances can present a wide range of short- and long-term health issues, including poisoning, skin rashes and disorders of the lung, kidney and liver. Information about the identities and hazards of chemicals must be available and understandable to workers. The OSHA HCS is designed to ensure that information about chemical and toxic substance hazards in the workplace and associated protective measures is provided to workers. If you are unsure of the identity, proper use, or hazards of a chemical, stop and ask your supervisor before using it.

Guidelines to Mitigate Infectious Disease

Infection Control Basics

Infectious agents include bacteria, viruses and other microbes (i.e. germs). Most of these agents don't harm humans, but some can cause illness ranging from mild to severe, even life-threatening. There is a difference between infection and illness:

- Infection occurs when an infectious agent enters a human body and begins to multiply.
- Illness occurs when the cells in your body are damaged as a result of the infection and signs and symptoms of illness appear.

In response to infection, the body's immune system acts to fight the infection, which may result in fever, coughing, sneezing, etc. to either kill the infectious agent or expel it from the body.

Infection Prevention

Methods to Avoid Infections

1. Understand how infections can spread person to person. Infectious agents may be transmitted from person to person when an infected person's respiratory droplets travel through the air and these droplets land in the mouths, noses or eyes of another person nearby, or the droplets are inhaled into the lungs. It can also happen when a person touches an object or person that has the infectious agent on it or them, then touches their mouth, nose or eyes.
2. Wash hands often to protect against most infections. Wash hands thoroughly (for at least 20 seconds) before preparing or eating food, after coughing or sneezing, after using the bathroom, caring for someone who is sick, after in public when contacting frequently touched items or surfaces, etc. When soap and water aren't available, alcohol-based hand-sanitizing gels (at least 60% alcohol) should be used.
3. People who are sick must stay away from others. The best way to avoid spreading infection is for symptomatic people to avoid public places, including the workplace.
4. Stay at least 6 feet away from another person who exhibits symptoms.
5. Cover mouth and nose with a tissue or inside of the elbow when coughing or sneezing. Immediately throw tissues in the trash and wash hands.
6. Clean and disinfect surfaces, particularly frequently touched surfaces. Also clean surfaces of shared tools, equipment and vehicles.
7. During an outbreak, epidemic or pandemic, enhanced prevention methods must be implemented. These may include:
 - Procedures for prompt identification and isolation of sick people.
 - Procedures for flexible work schedules and remote working.
 - **Engineering controls:** HVAC adjustments and filtration, physical barriers, etc.
 - **Administrative controls:** modified shifts and schedules, increased hand washing, stay at home orders, working remotely, modify work practices.
 - **Personal Protective Equipment:** respirators, masks, gloves, eye protection, etc.

General Housekeeping

- Work areas should be clean and material properly stored.
- Walkways and floor areas should remain clear of slip, trip and fall hazards.
- All water or beverages spills should be cleaned up immediately.
- Storing materials in stairwells is prohibited as they are a primary exit route.
- If hazardous chemical spills are identified, employees should evacuate the immediate area, barricade the area and notify Police and Public Safety or EHS.
- Maintain a 3ft area of clearance around electrical panels at all times.
- Materials should not be stored in or near electrical switchboards, in mechanical equipment rooms, attics, stairwells or IT closets.
- Materials and tools should be neatly and securely stored in designated areas.
- Employees should never block or lock emergency exits, fire alarm pull stations or fire extinguishers.
- Exit doors should never be propped open.
- Employees should not store combustibles in exit aisles.
- Maintain a three foot area of clearance in exit aisles at all times.

SECTION 3 - SPECIFIC SAFETY AND HEALTH PROGRAMS

Bloodborne Pathogens

Divisional Units with employees that have occupational exposure to bloodborne pathogens are required to have a written Exposure Control Plan, that includes exposure determination, methods of compliance, hepatitis B vaccination, post exposure evaluation. Communication of hazards and record keeping.

Employees exposed to blood or other body fluids must receive training in work practices, methods of exposure and universal precautions covered by the Exposure Control Plan. Universal Precautions is an approach to infection control in which all human blood and certain body fluids are treated as if known to be infectious.

Confined Space Entry

A confined space is a space that is large enough to bodily enter, has limited or restricted access/ egress and is not designed for continuous human occupancy. Common confined spaces can include (but are not limited to) sewers, manholes, tanks or vaults. All confined spaces must be evaluated prior to entry to determine if they meet the criteria that require a permit for entry. Contact Environmental Health and Safety for assistance (910) 871-1443/1332.

Supervisors must designate spaces as either **permit required**, or **non-permit required** based on hazard assessment. No employee may enter a confined space without proper training, authorization and adherence to FSU requirements. Permit to enter in a Permit Required Confined Space is issued by the supervisor and require certain information such as:

- Personnel involved in entry.
- Emergency rescue plan.
- Atmospheric monitoring information.
- Communication procedures.

No employee may enter a confined space without proper training, authorization, and adherence to the requirements specified in the Program.

Contractor Safety

Ensuring safety across all University projects is a top priority, and the Contractor Safety Program serves as a comprehensive guide for contractors working on campus. This document provides essential safety protocols, emergency procedures, and compliance guidelines to foster a secure and OSHA-compliant environment. Contractors are expected to familiarize themselves with these policies, covering areas such as barricading, hazardous communication, confined space entry, fire protection, and training requirements. By adhering to these standards, contractors not only safeguard their teams but also contribute to maintaining the safety and well-being of the University community.

Electrical Safety

Employees whose jobs require them to work on or near exposed energized parts are required to properly plan and train according to FSU Electrical Safety Program. All departments shall ensure that employees are prepared to anticipate, identify, and minimize electrical hazards during their assigned job duties.

Electrical work must follow all federal and state requirements and good industry practices. A safety warning system should be used to ensure that all power is removed from the system (see the Lockout/Tagout section for more information).

Precautions:

- Visually inspect electrical tools, cords and equipment prior to use.
- Extension cords must be at least 12 gauge 3 wire type and properly rated for the service.
- Do not use and dispose of worn, frayed or damaged cords. Use cords with a ground prong. Cables passing through work areas must be covered or elevated to protect them from damage and eliminate tripping hazard, and not attach to building or structure.
- Receptacles present near a water supply or outdoors must be protected with a Ground Fault Circuit Interrupter (GFCI) or use a portable GFCI when work may involve exposure to water or other conductive fluids.
- Ensure covers protect exposed wires.
- Ensure lighting fixtures are in good condition with no exposed energized parts.
- De-energize and follow Lockout Tag Out procedures when working with electrical equipment.
- Maintain adequate clearance distance from overhead energized lines and equipment.

Fall Protection

A fall hazard is any condition on a walking working surface exposes an employee to a risk of fall on the same level or to a lower level. Preventing falls on the same level requires keeping walking working surfaces clear of slip and trip hazards. Preventing or protecting falls from height may be necessary at any height given the circumstances, but is required when an employee is at a height of 4 feet or more above a lower level.

All employees will be protected from falling when working on a surface that has an unprotected side, edge, etc., elevated work platforms four feet or more above an adjacent lower level, and when working above dangerous equipment while working in general industry.

While performing construction type activities, all employees will be protected from falling from a surface six feet or more above a lower level. Scaffolds used during construction type activity requires fall protection to be used at 10 feet or more above a lower level. In construction activities involving steel erection, employees who are on a walking-working surface with an unprotected edge more than 15 feet above a lower level must be protected by conventional fall protection. When working from aerial lifts, review the FSU Aerial Lift Training Program for additional guidance.

Fall hazards will be evaluated by the Environmental Health and Safety office and management to determine the best method to protect the employee. When selecting what type of fall protection to use, the Environmental Health and Safety office will consider the hierarchy of hazard control, which organizes risk control techniques from most- to least-effective (examples are shown below in order of decreasing effectiveness and preference).

Guardrail Systems

Guardrails are the preferred method for the protection of fall hazards. Typical locations that require guardrails include floor openings, wall openings, open-sided floors, platforms and runways.

All guardrail systems used by Fayetteville State University will meet the following criteria:

- Top rail is 42 inches, +/- 3 inches above the walking/working level.
- Mid rail is located midway between the top rail and the walking/working level.
- Top rails and mid rails will be constructed of materials at least one-quarter inch in thickness or diameter. If wire rope is used for top rails, it must be flagged with a high-visibility material at least every 6 feet and can have no more than 3" deflection.
- The top rail must be capable of withstanding a force of 200 pounds when applied in any downward or outward direction.
- The mid rail must withstand a force of 150 pounds applied in any downward or outward direction.
- Toe boards are required for all guardrails on elevated walking/working platforms where pedestrians below are exposed to falling objects.
- Toe boards must be 4" in height and must be securely fastened.
- The system will be smooth to prevent punctures, lacerations or snagging of clothing.
- The ends of the top rail should not overhang the terminal posts, except when such overhang does not present a projection hazard; and
- When a hoisting area is needed, a chain, gate or removable guardrail section must be placed across the access opening when hoisting operations are not taking place.

Personal Fall Arrest Systems

If a fall occurs, the employee must not be able to free fall more than 6 feet, nor contact a lower level. All personal fall arrest system components that are subjected to an impact load must be removed from service immediately. Personal fall arrest systems will be inspected prior to each use and damaged or deteriorated components removed from service and destroyed.

HAZCOM

The Federal Right to Know Act states that all employees have a right to know the specific health hazard information of any chemical they could potentially be exposed to as they work.

The OSHA Hazard Communication Standard follows the provisions of the United Nations " Globally Harmonized System of Classification and LABELING OF Chemicals" GHS. Two significant components of the GHS are the standardized labeling elements and format for Safety Data Sheets.

Container labeling

All containers of hazardous chemicals on a job site shall be properly labeled, with no symbols or abbreviations. This includes materials that are transferred from a larger container to a smaller one, or individual container for individual use. All existing labels on incoming containers and secondary containers of hazardous chemicals shall not be removed or defaced. The label will contain the following information:

- Product Identified / Name
- **Signal Word** – Single word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label (Danger: More severe hazards / Warning: Less severe hazards)
- **Hazard Statement** – Statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical
- Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party.

Safety Data Sheets

Safety Data Sheets (SDS) of potentially harmful chemicals must be available for employees. These sheets are sent from the manufacturer and contain the name, properties, potential hazards and safety measures associated with the chemical. Every employee must be trained on the SDS for the chemical they are using and has the right to access these sheets at any time for clarification for potential hazards. If at any time a question arises, ask a supervisor before working with any chemicals.

Heat / Cold Stress Safety

Heat Related Emergencies

There are stages or levels of heat related emergencies and corresponding treatments. Always take proper precautions, and never attempt to "work through" or allow others to work through these symptoms. Dial 911 for emergency assistance.

Heat stroke

Symptoms includes confusion, fainting, seizures, very high body temperature and excessive sweating or red, hot, dry skin. Offer first aid:

- Place worker in shady, cool area.
- Loosen clothing; remove outer clothing.
- Fan air on worker; cold packs in armpits.
- Wet worker with cool water; apply ice packs, cool compresses, or ice if available.
- Provide fluids (preferably water).
- Stay with worker until help arrives.

Heat Exhaustion

Symptoms include cool, moist skin; heavy sweating; headache; nausea or vomiting; dizziness; lightheadedness; weakness; thirst; irritability or fast heart beat. Offer first aid:

- Have worker sit or lie down in a shady area.
- Provide water or other cool beverages.
- Cool worker with cold compresses/ice packs.

Heat Cramps

Symptoms include muscle spasms or pain usually in the abdomen, arms or legs . Offer first aid:

- Have worker rest in shady, cool area.
- Worker should drink water or a cool beverage.
- Wait a few hours before allowing worker to return to strenuous work.
- Seek medical attention if cramps persist.

Heat Rash

Symptoms include clusters of red bumps on skin that often appear on neck, upper chest or skin folds. Offer first aid:

- Work in a cooler, less humid location if possible.
- Keep the affected area dry.

Cold Illness

Cold temperatures and increased wind speed (wind chill) cause heat to leave the body more quickly, putting workers at risk of cold stress. Anyone working in the cold may be at risk. To protect yourself and others, know and monitor for the symptoms. Also, dress properly with layers of loose-fitting, insulating (and waterproof if necessary) clothes including jacket, gloves, hat and boots. Dial 911 in case of emergency.

Hypothermia

Normal body temperature (98.6°F) drops to 95°F or less. If mild, the person is alert but shivering. If moderate or severe, the shivering stops. There is confusion, slurred speech, slow heart rate and breathing, loss of consciousness or death. Call 911 immediately in an emergency. To prevent further heat loss:

- Move the worker to a warm place.
- Change to dry clothes.
- Cover the body (including head and neck) with blankets and with something to block the cold (e.g., tarp, garbage bag). Do not cover the face.

Frostbite

Frostbite occurs when body tissues, such as in the hands and feet, freeze. This can occur at temperatures above freezing – due to wind chill – and may result in amputation. Symptoms include numbness. Skin may appear reddened, with gray or white patches, feel firm or hard, and may blister.

- Follow the recommendations for hypothermia.
- Do not rub the frostbitten area.
- Avoid walking on frostbitten feet.
- Do not apply snow/water or break blisters.
- Loosely cover and protect areas from contact.
- Do not try to rewarm the area unless directed by medical personnel.

Hot Work Safety

IMPORTANT: No hot work shall be performed without written approval and issuance of a Hot Work Permit. To obtain a “work permit” between normal operating hours (Mon-Fri 8am-5pm) call (910) 672-1443/1332. The requirements of the permit shall be followed at all times.

Except where more stringent requirements may exist, all hot work shall be in accordance with

Hot work is defined as any work that has the potential of creating or becoming a source of ignition. This includes grinding, welding, thermal or oxygen cutting or heating, and other related heat or spark-producing operations.

Hot Work Program

The Hot Work Program is designed to minimize or eliminate fire hazards associated with any hot work operation as identified in the NC State Fire Code, in the OSHA Standard for Welding, Cutting, & Brazing Standard, 29 CFR 1910, Subpart Q and NFPA 51B, Fire Prevention During Welding, Cutting, and Other Hot Work.

This program applies to all contractors and university units conducting hot work on campus, such as welding, torching, soldering, cutting, brazing, grinding, use of tar kettles or other work that might create sufficient heat or spark that could start a fire

Lockout Tagout Safety

The control of hazardous energy is required before service, repair, maintenance, inspection, or exposure to equipment or areas where hazard may be presented by uncontrolled energy, including the flow of solids, liquids or gases into confined spaces or environments.

Equipment that has more than one energy source or multiple hazards (pneumatic, steam, chemical or hydraulic) must have written procedures for shut down and start up.

Lockout /Tagout (LOTO) is the process of identifying and ensuring all energy sources are properly isolated and secured before work begins.

All FSU employees who service or maintain equipment where the unexpected energizing, start up or release of hazardous energy could cause injury should be trained and follow FSU's LOTO program that follows NC DOL Control of Hazardous Energy.

Mobile Elevated Work Platform Safety

To minimize employee exposure to hazards associated with Mobile Elevated Work Platforms (MEWP), and to comply with all regulatory requirements for the safe operation of such equipment, management will select supervisors and operators to be trained to become designated Qualified Person(s) for the worksite.

Supervisors, operators and occupants must receive appropriate training prior to lift use and are considered trainees until they are fully trained and qualified to perform the task and operate a specific lift.

MEWP setup and use must be performed by a two – person team that's trained and qualified regarding the task to be performed on the specific type of lift.

Employees must not operate contractor lifts. Likewise, contractors are not authorized to use FSU lifts.

A risk assessment should be conducted to determine the best method to safely complete elevated work. When working with a MEWP, the employee must use the risk assessment to determine the type of MEWP to use and create safe use and rescue plan. Forms are available in the MEWP Program.

Personal Protective Equipment Safety

The primary methods for preventing employee exposure to hazardous materials are elimination, engineering and administrative controls. Where these control methods are not appropriate or sufficient to control the hazard, personal protective equipment (PPE) is required. This may include head protection, eye protection, hand protection, foot protection and respirators

PPE Selection

Consideration is given to comfort and fit of PPE in relation to the assigned task to ensure that the PPE is effective and will be used properly. Required PPE is provided; employees do not procure their own PPE unless they want to, and it is approved by EHS. PPE meets the appropriate industry standards:

Eye and face protection must comply with ANSI Z87.1-2010

Head protection must comply with ANSI Z89.1-2009

Foot protection must comply with ANSI Z41-1999

No industry standard is available for hand protection. However, selection must be based on performance characteristics of the hand protection in relation to the associated tasks and hazards. Glove selection guides are available from glove vendor websites.

Cleaning and Maintenance

Users are responsible for cleaning and maintaining PPE. PPE is inspected, cleaned, and maintained at regular intervals to ensure adequate protection and performance. Damaged or compromised PPE is not used. PPE is for personal use only.

Eye and Face Protection

Protective eye wear is required in areas where potential eye hazards exist. These hazards include but are not limited to projectiles, chemicals, light radiation, and biological hazards.

People whose vision requires the use of prescription (Rx) lenses must wear either protective devices fitted with prescription (Rx) lenses or protective devices designed to be worn over regular prescription (Rx) eye wear.

Hand Protection

Hand protection is required to be worn in areas where potential hand hazards exist. These hazards include but are not limited to chemical agents, biological agents, radioisotopes, objects that can cause lacerations or abrasions, and extreme temperatures.

- Selection of appropriate gloves is based on performance characteristics, conditions of use, and duration of use.
- Glove materials must be appropriate for protection from the identified hazard.
- Guidance for glove selection is available from the EHS Officer / Professional.
- Gloves are replaced when damaged or contaminated.
- Employees must develop practices that reduce the potential for contamination during glove removal.

Head Protection

Employees are required to use head protection when there is a risk of impact hazards from falling or fixed objects, penetration from impact hazards, or exposure to live electrical conductors.

Foot Protection

Open toe shoes are prohibited while working in or entering a laboratory, maintenance shop, or other hazardous area.

Protective Clothing

Protective clothing is worn to prevent injury from biological hazards, hazardous chemicals, electrical hazards, radioactive material, heat, sparks, impact, and cut hazards.

Hearing Conservation

Excessive noise levels may exist while operating certain equipment or machinery. Exposure to high noise levels could result in a gradual loss of hearing which may not be noticeable to the individual.

If noise levels exceed safe limits as prescribed by NIOSH, employees must be protected by either engineering controls by a hearing conservation program which includes hearing protection and appropriate periodic testing.

If high noise is suspected, an employee should contact the assigned supervisor so that the noise level can be measured by trained individuals.

Hearing loss can happen very slowly or very suddenly; it can be temporary or permanent.

Respiratory Protection

Employee must be protected from breathing air contaminated with harmful dusts, fogs, fumes, mist, gases or vapors. When eliminating exposure or controlling with engineering is not feasible, employees must wear appropriate respiratory protection. Employees who wear respirators will be included in the Respiratory Protection Program, which includes medical surveillance, fit testing and training. Employee use of respirators must be approved through EHS. Using filtering face piece respirators (i.e. N95 'dust masks') is voluntary during activities that involve exposures to nuisance-level particulates; when they are required, all elements of the Respiratory Protection Program apply. A work area assessment is required to determine the potential hazards and select the appropriate PPE for adequate protection. Employees must receive training that includes the proper PPE for their job; when this PPE must be worn; how to wear, adjust, maintain and discard this equipment; and the limitations of the PPE. All training must be documented.

Work on or near public roadways

It is important to be conscious of all vehicular traffic that may be present during field operations.

- Wear a high visibility safety vest (ANSI Class 2 or 3).
- Use caution tape, barricades, signage or safety cones to denote the boundaries of the work area and to alert vehicle operators to the presence of operations. Cones and signs are only effective if they give oncoming drivers enough time to react and make it clear how traffic should react.
- Use the flashing amber/yellow light located on top of your vehicle to alert traffic to the work zone.
- Be careful when exiting the work area and especially when walking out from between parked vehicles to avoid vehicular traffic.
- Try to never turn your back to oncoming traffic.
- Arrange work vehicles to be used as a barrier between workers and nearby traffic. If an oncoming car should fail to yield or deviate, the parked vehicle – rather than your body – would absorb the first impact of a crash.

GLOSSARY

TERM	DEFINITION
EHS	Environmental Health & Safety – University department responsible for ensuring compliance with safety, health, and environmental regulations.
FSU	Fayetteville State University.
OSHA	Occupational Safety and Health Administration – Federal agency ensuring safe and healthful working conditions.
NCOSHA	North Carolina Occupational Safety and Health Act – State-level OSHA regulation and enforcement.
WCA	Workers' Compensation Administrator – University contact for workplace injury and workers' compensation reporting.
SOP	Standard Operating Procedure – Written instructions to achieve uniformity in performing specific functions safely.
PPE	Personal Protective Equipment – Gear used to minimize exposure to hazards (gloves, goggles, helmets, etc.).
HAZCOM	Hazard Communication – OSHA standard that ensures information about chemical hazards is available and understandable to workers.
SDS	Safety Data Sheet – Document providing details about a chemical's properties, hazards, and safe handling.
LOTO	Lockout / Tagout – Procedures to ensure machinery is properly shut off and not started up before maintenance or repair work.
MEWP	Mobile Elevated Work Platform – Equipment such as scissor lifts or boom lifts used for elevated work.
ANSI	American National Standards Institute – Develops safety and quality standards for equipment and systems.
NFPA	National Fire Protection Association – Develops codes and standards to minimize fire risks.

TERM	DEFINITION
GFCI	Ground-Fault Circuit Interrupter – Device to protect people from electric shock by shutting off power when imbalance is detected.
GHS	Globally Harmonized System of Classification and Labeling of Chemicals – International standard for chemical labeling and hazard communication.
MSD	Musculoskeletal Disorder – Injuries or disorders affecting muscles, nerves, tendons, joints, or cartilage.
HVAC	Heating, Ventilation, and Air Conditioning – Building systems related to indoor air quality and temperature.
Rx	Prescription – Refers to prescription lenses or eyewear in PPE guidance.
dBA	A-weighted Decibel – Measurement unit for sound level adjusted to human hearing sensitivity.
CFR	Code of Federal Regulations – Contains OSHA standards and other federal workplace safety requirements.
NC DOL	North Carolina Department of Labor – State agency overseeing labor standards and OSHA enforcement.
NFPA 51B	Standard for Fire Prevention During Welding, Cutting, and Other Hot Work.
HCS	Hazard Communication Standard – OSHA regulation requiring communication of chemical hazards to workers.
Hazard	Any object, situation, or behavior that has potential to cause injury, illness, or property/environmental damage.
Near Miss	An unplanned event that did not result in injury, illness, or damage—but had the potential to do so.
BLS/CPR/AED	Basic Life Support / Cardiopulmonary Resuscitation / Automated External Defibrillator – Emergency response techniques and devices.

