



Environmental Health & Safety

Florida Institute of Technology
Environmental Health & Safety
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Environmental Health & Safety

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Revision History

Revision Number	Revision Date	Revised By	Description of Change
00	2/9/2021	Selvin McLean	Initial plan creation and implementation.
01	2/25/2021	Selvin McLean	Program updates; document format
02	5/25/2021	Selvin McLean	Program updates
03	6/30/2021	Selvin McLean	Program updates
04	9/22/2021	Selvin McLean	Program updates
05	10/13/2021	Selvin McLean	Program updates; document format-cover
06	8/8/2022	Selvin McLean	Program updates
07	1/24/2023	Selvin McLean	Document/Program updates
08	6/10/2024	Selvin McLean	Review/updates/typo corrections

This document will be updated once a year. Program areas are updated on a continued bases as required by government regulations.

What is Environmental Health and Safety?

Environmental Health and Safety (EHS) is a department/section in an organization assigned with ensuring that the work done by the organization does not cause undue environmental harm, place workers' health and safety at risk that may pose injury/illness; complies with applicable legislation and follows best practices.

EHS department/section goal is to prevent and reduce accidents, emergencies, health issues and/or environmental impacts at work or a job site. This is done by applying a systematic and empirically informed approach to preventing accidents and injuries. EHS oversees a range of hazards, including biosafety hazards, chemical hazards, radiological hazards, ergonomic hazards, exposure to carcinogens, falls from height, water safety and areas such as heavy machinery operations...etc.

The work undertaken by EHS department/section is motivated by a number of concerns: The protection of workers, their health, and the natural environment; Compliance with legal requirements and regulatory standards; and the increase in productivity, profit, and morale that comes with a safe and healthy workforce.

Programs

Biosafety

Date revised: 2023

The goal of the Institute's biosafety program is to protect the researchers, staff and students from exposure to infectious agents, to prevent environmental contamination, to enhance the research atmosphere, and to comply with federal, state and local regulations.

<https://www.fit.edu/office-of-environmental-health-and-safety/biosafety/>

Environmental Management

Date revised: 2021

The program is a systematic approach to finding practical ways for saving resources, and reducing negative environmental impacts.

<https://www.fit.edu/office-of-environmental-health-and-safety/environmental-management/>

Life Safety Protection

Date revised: 2021

Life safety is concerned with protecting the very lives of the members, visitors, and employees of Florida Tech. Working safely in environments where conditions may change adversely and affect personnel lives.

<https://www.fit.edu/office-of-environmental-health-and-safety/life-safety-protection-program/>

Medical Surveillance

Date revised: 2021

Medical surveillance is the systematic assessment of employees exposed or potentially exposed to occupational hazards. This assessment monitors individuals for adverse health effects and determines the effectiveness of exposure prevention strategies. A medical surveillance program includes the analysis of both individual and aggregate surveillance data over time, with the goal of reducing and ultimately preventing occupational illness and injury.

<https://www.fit.edu/office-of-environmental-health-and-safety/medical-surveillance-program/>

Occupational Safety & Health

Date revised: 2021

It is the policy of Florida Tech to provide and ensure a safe and healthy environment for the Florida Tech community by constantly maintaining an effective safety and environmental/occupational health program. In fulfilling this task as an educational institute, the greatest responsibilities of the Florida Tech are to protect personnel safety, preserve its physical assets and protect the environment. It is also Florida Tech's policy to comply with all applicable safety, health, and environmental protection laws, regulations and requirements. In the absence of specific regulatory statutes and mandates for particular situations, best management safety practices shall be followed. Florida Tech's goal is to prevent all workplace injuries and illnesses, property losses or damage, and adverse environmental impacts. Achieving this goal is the responsibility of every member of the Florida Tech's community.

<https://www.fit.edu/office-of-environmental-health-and-safety/occupational-safety--health/>

Regulated Wastes

Date revised: 2024/ongoing

Florida Tech produces various types of regulated wastes through research activities and/or institute maintenance spanning federal, state, and local regulations. Florida Tech's Environmental Health & Safety (EHS) office manages all regulated wastes by supplying approved containers, support equipment, technical support, and transportation to our authorized temporary storage sites. All regulated wastes are properly disposed through permitted treatment, storage and disposal facilities.

<https://www.fit.edu/office-of-environmental-health-and-safety/regulated-wastes/>

Respiratory Protection

Date revised: 2023

Florida Tech is committed to the protection of university workers from occupational hazards, including the potential health risks associated with exposure to airborne contaminants. The Respiratory Protection Program meets the University's goal of the control of airborne contaminants by the application of engineering and work practice control measures. When effective engineering controls are not feasible, or while they are being instituted, appropriate respiratory protection must be used. Personal Protective Equipment (PPE), including respirator protection, is normally the last resort in minimizing the hazards of airborne contaminants.

<https://www.fit.edu/office-of-environmental-health-and-safety/respiratory-protection-program/>

Safety Training

Date revised: Ongoing

Environmental Health and Safety (EHS) provides safety training that is required by various regulatory agencies (OSHA, EPA, FDEP etc.). This program falls under the Safety Training Policy.

<https://www.fit.edu/office-of-environmental-health-and-safety/safety-training/>

Florida Tech Workplace Inspection

Date revised: 2024

The goal of this program is to reduce the risk of occupational injuries and illnesses by identifying unsafe and unhealthy conditions and providing the opportunity for such hazards to be abated before injuries or illnesses occur. Periodic facility/site inspections also provide an opportunity to verify compliance with applicable regulations and established workplace safety standards.

<https://www.fit.edu/office-of-environmental-health-and-safety/workplace-inspection-program/>

Plans

EHS Strategic Safety Plan (2025-2029)

Date revised: 2024

This plan is a guiding document for the department to prioritize work and resources, while accomplishing its mission. To prioritize the work, EHS needs to know what goals will help Florida Tech meet its vision for health, safety, and environmental protection and what strategies will be most effective in achieving those goals.

<https://www.fit.edu/office-of-environmental-health-and-safety/>

Florida Tech Bloodborne Pathogens Plan

Date revised: 2023

This plan has been developed by The Office of Environmental Health & Safety (EH&S) as part of the Florida Tech's Biosafety Program. Florida Tech's Bloodborne Pathogens Plan has been developed to ensure that all employees are protected from the risk of exposure to bloodborne pathogens, such as the Human Immunodeficiency Virus (HIV) and the Hepatitis B Virus (HBV). This Plan has been developed in accordance with the regulations set forth in the Occupational Safety and Health Administration's (OSHA), 29 CFR 1910.1030: Occupational Exposure to Bloodborne Pathogens Standard.

<https://www.fit.edu/office-of-environmental-health-and-safety/biosafety/>

Florida Tech Biomedical Waste Plan

Date revised: 2023

This plan is Florida Tech's Plan for management of biomedical waste production, safety and disposal. Biomedical wastes require careful containment and disposal before collection and consolidation for treatment. The Occupational Safety & Health Administration (OSHA) has dictated initial measures for discarding regulated medical-waste items. These measures are designed to protect the workers who generate medical wastes and who manage the wastes from point of generation to disposal (29 CFR 1910.1030).

<https://www.fit.edu/office-of-environmental-health-and-safety/biosafety/>

Florida Tech Controlled Substance Safety Plan

Date revised: 2024

A number of substances regulated by the United States Drug Enforcement Administration (DEA) and other agencies are used for research and instructional purposes at Florida Institute of Technology (Florida Tech). These substances are known as "controlled substances," and their possession and use are governed by regulations that require established procedures to ensure safety and prevent abuse. This Controlled Substance Safety Plan (CSSP) describes responsibilities and procedures for research and instructional activities by those individuals who are authorized to work with controlled substances at Florida Tech.

<https://www.fit.edu/office-of-environmental-health-and-safety/biosafety/>

Florida Tech Infectious Disease Response Plan (IDRP)

Date revised: 2023

This plan has been created for Florida Tech to better prepare for a possible infectious disease (agent) incident or an outbreak (commonly referred to as a "pandemic"). It outlines the steps to take before, during, and after an outbreak to further reduce/eliminate the possibility of occupational exposure to employees, students, residents, and the general public.

<https://www.fit.edu/office-of-environmental-health-and-safety/biosafety/>

Florida Tech Chemical Hygiene Plan

Date revised: 2023

Florida Tech is legally and ethically required to provide a safe working environment for all its employees and students under the General Duty Clause, Section 5(a)(1) of the Occupational Safety and Health Act of 1970, employers are required to provide their employees with a place of employment that is 'free from recognized hazards that are causing or are likely to cause death or serious physical harm.' Since Florida Tech employs workers engaged in the use of hazardous chemicals, Florida Tech must comply with the provisions of the Occupational Safety and Health Administration (OSHA) standard: "29 CFR§1910.1450, Occupational Exposure to Hazardous Chemicals in Laboratories."

<https://www.fit.edu/office-of-environmental-health-and-safety/chemical-safety/>

Florida Tech Hazard Communication Plan

Date revised: 2024

Hazardous chemicals, and products containing hazardous chemicals, are used at all Florida Tech locations. To protect the safety and health of employees that may be exposed to hazardous chemicals under normal conditions, or in foreseeable emergencies, Florida Tech will comply with 29 Code of Federal Regulation (CFR) 1910.1200: The Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS).

<https://www.fit.edu/office-of-environmental-health-and-safety/chemical-safety/>

Florida Tech Hazardous Waste Contingency Plan

Date revised: 2023

In accordance with Title 40 of the Code of Federal Regulations (CFR) 265 Subpart D, State of Florida Hazardous Waste Regulations Section 62-730.180(2), Florida Administrative Code (FAC) and 29 CFR 1910.38 the following plan will be used in the event of an emergency. The purpose of the Hazardous Waste Contingency Plan is three-fold:

1. To act as a guide during actual emergency situations;
2. To minimize hazards to human health and the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soils, or surface water; and
3. To familiarize local emergency response personnel (i.e. police, fire, and rescue departments, hospital and governmental personnel) with the types of material handled and internal emergency response procedures.

<https://www.fit.edu/office-of-environmental-health-and-safety/regulated-wastes/hazardous-waste-contingency-plan/>

Florida Tech Hurricane Contingency Plan (not published/internal document)

Date revised: 2024

The provisions of the plan must be carried out immediately whenever an imminent hurricane has the potential to cause the release of hazardous waste, biomedical waste, or radioactive waste which could threaten human health or the environment. This plan is also intended to describe the actions university personnel must take to consolidate and prepare the various waste streams to minimize accidental release and prevent hazards to human health or the environment.

Florida Tech Fume Hood Canopy Plan

Date revised: 2022

The fume hood is often the primary control device for protecting laboratory workers when working with flammable and/or toxic chemicals. OSHA's Laboratory standard (29 CFR 1910.1450) requires that fume hoods be maintained and function properly when used.

<https://www.fit.edu/office-of-environmental-health-and-safety/chemical-safety/>

Florida Tech Aerial-Scissor Lift Plan

Date revised: 2021

This plan has been established to ensure the safe operation of aerial and scissor lifts. Additionally, this plan ensures that employees understand and comply with applicable regulations and industrial safety standards related to aerial/scissor lifts.

<https://www.fit.edu/office-of-environmental-health-and-safety/occupational-safety--health/>

Florida Tech Compressed Gas Safety Plan

Date revised: 2023

Hazards associated with compressed gases include oxygen displacement, fires, explosions, and toxic gas exposures, as well as the physical hazards associated with high pressure systems. Special storage, use, and handling precautions are necessary in order to control these hazards.

<https://www.fit.edu/office-of-environmental-health-and-safety/occupational-safety--health/>

Florida Tech Ergonomics Plan

Date revised: 2021

The purpose of this plan is to apply ergonomic principles to the workplace to reduce the number and severity of musculoskeletal disorders (MSDs), thus decreasing workers' compensation claims and, where possible, increasing productivity, quality, efficiency as well as employee health. An ergonomically designed work environment maximizes employee comfort while minimizing the risk of undue physical stress that often leads to injuries.

<https://www.fit.edu/office-of-environmental-health-and-safety/occupational-safety--health/>

Florida Tech Fall Protection Plan

Date revised: 2023

The objective of this plan is to identify and evaluate fall hazards to which employees will be exposed, and to provide specific training as required by the Occupational Safety and Health Administration (OSHA) Fall Protection Standard.

<https://www.fit.edu/office-of-environmental-health-and-safety/occupational-safety--health/>

Florida Tech Hearing Conservation Plan

Date revised: 2023

This plan requires the monitoring of areas/equipment that may pose hearing damage to employees. This exposure to noise levels at or above 85 decibels (dB) averaged over 8 working hours, or 8-hour time-weighted average (TWA). Florida Tech will monitor all employees whose noise exposure is equivalent to or greater than a noise exposure received in 8 hours where the noise level is constantly 85 dB.

<https://www.fit.edu/office-of-environmental-health-and-safety/occupational-safety--health/>

Florida Tech Hotwork Plan

Date revised: 2021

The purpose this plan is to reduce risk and increase safety by utilizing control measures to protect personnel, property, and the environment from the hazards of hot work activities. Hot Work activities

include but are not limited to burning, welding, cutting, torch cutting, brazing, torch soldering, and applications that generate heat, sparks, arcs, open flames, or other fire hazards in proximity to flammable or combustible materials.

<https://www.fit.edu/office-of-environmental-health-and-safety/occupational-safety--health/>

Florida Tech LOTO

Date revised: 2022

The purpose of this plan is to establish methods for safely isolating machines or equipment from energy sources during routine maintenance and servicing of those machines and equipment. Those who service and maintain machinery or equipment are especially vulnerable because the machinery or equipment might become energized while being serviced, or stored energy might be unexpectedly released.

Utilizing the Lockout/Tagout system ensures personnel safety. The Lockout/Tagout system is commonly referred to as “LOTO”.

<https://www.fit.edu/office-of-environmental-health-and-safety/occupational-safety--health/>

Florida Tech Machine Guarding Plan

Date revised: 2021

Moving machine parts have the potential to cause severe workplace injuries or death, such as crushed fingers or hands, amputations, burns, or blindness. Safeguards are essential for protecting workers from these preventable injuries. Any machine part, function, or process that may cause injury must be safeguarded. When the operation of a machine or accidental contact can injure the operator or others in the vicinity, the hazards must be eliminated or controlled.

<https://www.fit.edu/office-of-environmental-health-and-safety/occupational-safety--health/>

Florida Tech Minors in the Laboratories Plan

Date revised: 2024

The purpose of this plan is to identify under what circumstances and/or conditions minors will be allowed to visit, work or conduct research in Florida Tech research laboratories where hazardous materials are used or hazardous procedures are conducted, including animal facilities. These guidelines are necessary to help protect a minor’s health and safety and to provide reasonable measures to prevent harm arising from potential exposure to hazardous agents or conditions.

<https://www.fit.edu/office-of-environmental-health-and-safety/occupational-safety--health/>

Florida Tech Personal Protective Equipment Plan

Date revised: 2020

This plan provides educations about the personal protective equipment requirements and procedures to safeguard personnel safety and health.

<https://www.fit.edu/office-of-environmental-health-and-safety/occupational-safety--health/>

Florida Tech Personal Protective Equipment Guidelines

Date revised: 2023

This guide presents a means for selection of personal protective equipment for different work-related task.

<https://www.fit.edu/office-of-environmental-health-and-safety/occupational-safety--health/>

Florida Tech Portable Ladder Safety Plan

Date revised: 2021

This plan's purpose is to evaluate all slip, trip, and fall hazards related to the use of portable ladders and implement procedures and communication programs to protect workers from injury.

<https://www.fit.edu/office-of-environmental-health-and-safety/occupational-safety--health/>

Florida Tech Powered Industrial Truck Plan

Date revised: 2021

This plan is designed to provide guidance to Florida Tech personnel that operate powered industrial trucks (forklifts). The goal is safe operation of the equipment, no personnel injury or damage to property through fostering safety.

<https://www.fit.edu/office-of-environmental-health-and-safety/occupational-safety--health/>

Florida Tech Radiation Safety Plan

Date revised: 2023

Florida Tech's Radiation Safety Program/Plan is consistent with the rules and regulations set forth by the U.S. Nuclear Regulatory Commission (NRC) and the Florida Department of Health, Bureau of Radiation Control. To minimize exposure risks, the radiation safety practices outlined in this program must be maintained and adhered to by individuals using radioactive materials at Florida Tech.

<https://www.fit.edu/office-of-environmental-health-and-safety/radiation-safety/>

Florida Tech Radioactive Materials Use and Safety Manual

Date revised: 2022

This manual establishes standards for protection against radiation hazards and sets forth the procedures and responsibilities established for safeguarding of personnel in the use of radioisotopes.

<https://www.fit.edu/office-of-environmental-health-and-safety/radiation-safety/>

Florida Tech Laser Safety Plan

Date revised: 2023

The goal of this plan is to educate laser operators of the potential hazards of lasers. Annual laser inspections are conducted by Laser Safety Officer to ensure lasers are being operated safely. The Laser Safety Program and its procedures are based upon The American National Standards Institute (ANSI) Z136.1-2014 Standard for Safe Use of Lasers as well as state and federal regulations (64E-4 F.A.C. and 21CFR1040).

<https://www.fit.edu/office-of-environmental-health-and-safety/radiation-safety/laser-safety/>

Florida Tech Spills Prevention, Control and Countermeasure Plan (not published/internal document)

Date revised: Ongoing

This integrated contingency plan is intended to meet the requirements established in 40 CFR Part 112 for Spill Prevention Control and Countermeasures (SPCC), as well as, 40 CFR 264 for Resource Conservation and Recovery Act (RCRA) at Florida Tech campuses.

Florida Tech Waste Minimization Plan

Date revised: 2020

Florida Tech is classified as a large quantity generator of hazardous waste by the Florida Department of Environmental Protection and the U.S. Environmental Protection Agency. These agencies enforce the Resource Conservation and Recovery Act of 1984, which requires a "large quantity generator" to certify that it has a program in place to reduce the volume and toxicity of waste generated to the extent economically practical. Waste minimization is necessary to reduce present and future risks to human health and the environment. The Florida Tech Waste Minimization Plan presents guidelines that can be

used by university personnel and organizations to reduce the amount and toxicity of wastes generated at Florida Tech.

<https://www.fit.edu/office-of-environmental-health-and-safety/regulated-wastes/>

Florida Tech Universal Waste Storage

Date revised: 2020

The Environmental Protection Agency's (EPA) universal waste regulations streamline the hazardous waste management standards for certain categories of hazardous waste that are commonly generated by a wide variety of establishments. The universal waste regulations require the materials be managed in a way to prevent releases to the environment and tailors those requirements to each type of universal waste. The standards also include labeling, a requirement to respond to releases, and transport to a facility that is permitted or otherwise designated for receiving hazardous waste.

<https://www.fit.edu/office-of-environmental-health-and-safety/regulated-wastes/universal-waste-management/>

Florida Tech Respiratory Protection Plan

Date revised: 2023

This plan meets the University's goal is the control of airborne contaminants by the application of engineering and work practice control measures. When effective engineering controls are not feasible, or while they are being instituted, appropriate respiratory protection must be used. Personal Protective Equipment (PPE), including respirator protection, is normally the last resort in minimizing the hazards of airborne contaminants.

<https://www.fit.edu/office-of-environmental-health-and-safety/respiratory-protection-program/>

Florida Tech Indoor Air Quality Plan

Date revised: 2023

Florida Tech strives to provide all building occupants with an environment that maintains acceptable indoor air quality. This plan is designed to protect the health and safety of building occupants and decrease exposure to indoor air contaminants.

<https://www.fit.edu/office-of-environmental-health-and-safety/environmental-management/>

Florida Tech AED Plan

Date revised: 2023

This plan was developed to address the use of AEDs in Florida Tech workplaces and areas of operations when mobile. Cardiovascular disease is the single greatest cause of death in the United States. Nearly half of those deaths are due to sudden cardiac arrest (SCA) in out-of-hospital settings, including the workplace. Prompt application of the integrated skills of cardiopulmonary resuscitation (CPR) and automated external defibrillation (AED) provide victims of SCA with the greatest chance of survival.

<https://www.fit.edu/office-of-environmental-health-and-safety/life-safety-protection-program/>

Florida Tech Explosive Safety Plan

Date revised: 2023

This plan pertains to Florida Tech Projects/Experiments, Events, and Emergencies. Explosives are chemical compounds, mixtures or devices that will detonate or deflagrate when supplied with enough initiating energy. Furthermore, explosives do not distinguish between initiating energy supplied accidentally or deliberately. Those who handle and use explosive materials in the any process must prevent exposure of the material to accidental sources of initiating energy.

<https://www.fit.edu/office-of-environmental-health-and-safety/life-safety-protection-program/>

Florida Tech Working Environments Action Plan

Date revised: 2023

The concept behind this document is working in extreme/hazardous environments such as areas where the temperature may be at a high heat index or low, or severe weather (lightening, hurricane, tornado, earthquakes, floods etc.) that may cause life threatening injury or death to personnel. Safety standards set by OSHA include provisions for the storage of hazardous chemicals, equipment maintenance, fire protection, and protective clothing.

<https://www.fit.edu/office-of-environmental-health-and-safety/life-safety-protection-program/>

Florida Tech Small Boat Safety Plan

Date revised: 2020

The purpose of this plan is to establish requirements for the safe operation and management of Florida Tech's small boats. The Small Boat Safety Plan is designed to provide guidance, enhance safety, and familiarize participants with general operating standards and procedures for all small boats operated under the auspices of Florida Tech.

<https://www.fit.edu/office-of-environmental-health-and-safety/life-safety-protection-program/>

SOP

Florida Tech Peroxide Forming Chemicals SOP *Florida Tech Peroxide Evaluation Sheet*

Date revised: 2019

This document provides guidance on proper handling/storage. Peroxide-forming chemicals are a class of compounds that have the ability to form shock-sensitive explosive peroxide crystals when exposed to various storage conditions or extended storage times.

<https://www.fit.edu/office-of-environmental-health-and-safety/peroxide-forming-chemicals/>

Florida Tech Waste Consolidation Document (not published/internal department procedural document)

Date revised: 2021

The purpose of this document is to establish standard operating procedures for hazardous waste consolidation. Consolidation procedures will be specifically outlined for each profiled waste. Hazardous wastes present hazards to both human health and the environment, as a result they should be handled safely and cautiously. Administrative and engineering controls should be in place and as the last measure of defense, appropriate personal protective equipment should be worn.

Guide

Florida Tech Safety Guidelines for Pregnant Women in Florida Tech's Laboratories

Date revised: 2022

Florida Institute of Technology (Florida Tech) seeks to minimize the risks of working in its laboratories for all employees and students. Minimizing risks for pregnant women is especially important due to the sensitivity of the fetus to specific chemicals, biological agents and ionizing radiation. All lab workers should know the hazards of the materials with which they work, and it is important to recognize that an individual's susceptibility to those hazards may change due to factors such as pregnancy.

<https://www.fit.edu/office-of-environmental-health-and-safety/occupational-safety--health/>

Florida Tech Quick Reference Guide – Hazardous Waste

Date revised: 2023

This quick reference guide is designed to give information per 40CFR262.262 in a concise formatted document to first responders.

<https://www.fit.edu/office-of-environmental-health-and-safety/regulated-wastes/hazardous-waste-contingency-plan/>

Florida Tech Index of Chemical Names (Chemical Information)

Date revised: 2024

This document contains list of chemical compounds and provides a link to the National Institute for Occupation Safety & Health (NIOSH) and other entities with chemical compound information

<https://www.fit.edu/office-of-environmental-health-and-safety/safety-data-sheet-information/>

<https://www.fit.edu/office-of-environmental-health-and-safety/chemical-safety/>

Review

Student Project Review

<https://www.fit.edu/office-of-environmental-health-and-safety/forms-and-documents/>

Internal Budget Projects-Review

<https://www.fit.edu/office-of-environmental-health-and-safety/forms-and-documents/>