



# Environmental Health & Safety

## Strategic Safety Plan

2020-2024

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## **1.0 Introduction**

Florida Institute of Technology (Florida Tech) Environmental Health & Safety (EHS) Department provides education, training, and support to the entire Florida Tech community to promote health, safety, and environmental protection. Staffed by professionals in radiation safety, biological/biomedical safety, chemical safety, industrial hygiene, occupational safety, and environmental management. EHS will assist the Florida Tech community with evaluating and minimizing risks in the wide-ranging activities of faculty, students, and staff.

The purpose of Florida Tech's environmental health and safety program is to:

- Provide students, faculty, and staff with a safe and healthy work environment;
- Develop a safety awareness among employees and others engaged in work for Florida Tech so that accidents (personal injuries and property damage) and occupational illnesses will be reduced to a minimum;
- Identify and control safety, public health, and environmental hazards associated with their operations;
- Work constructively with government agencies and others to develop and implement laws, regulations, and standards to protect public health, safety, and the environment; and
- Work with university administration to assure adequate funding and staffing for environmental health and safety.

## **2.0 Florida Tech Environmental Health & Safety Goals**

**GOAL 1: Identify and prioritize environmental health and safety related risks to the campus community. Conduct hazard assessments prior to the start of new tasks where necessary.**

Due to the ever-expanding scope and diversity of research work performed within the university, a robust methodology for identifying, assessing, prioritizing, and mitigating risks is a critical part risk reduction. Identified risks can be managed effectively and allow for the flexibility necessary in high-level, cutting-edge research. Unidentified or poorly characterized risks can present a variety of adverse outcomes, negatively affecting personnel or property risk and/or the continuity of research at Florida Tech. At both the departmental and laboratory level, it is essential that hazard assessments be performed prior to the start of new tasks where hazardous materials or equipment are involved.

**GOAL 2: Build a lasting infrastructure of EHS practices and procedures at the college and facilities department level that incorporates corrective action and a continuing evaluation of program effectiveness.**

Key accident prevention and risk reduction means, and methods utilized by EHS are, by their nature, temporal. For lasting success, documented procedures and practices are necessary at the departmental level. This provides consistent implementation of vital risk prevention practices over time.

**GOAL 3: Provide useful tools to support students, faculty, staff, and campus partners.**

Strong safety practices reflect the actions of each team member in a lab or worker at a job site. With good procedures, proper equipment, training, and oversight, campus units are best prepared to conduct their work safely and manage environmental hazards. EHS staff proactively assist the campus community with implementing best practices, providing guidance, training campus personnel and inspecting labs and other work areas.

An EHS Management System employs primary elements that encompass the training, education, gap analysis, reviews, and adjustments to assure key EHS issues are properly addressed. This system includes:

- A gap analysis of compliance obligations
- Identification of key partners with EHS-related responsibilities
- An electronic means-based system to track / remind personnel of key compliance obligations
- A system for periodic inspections, audits, and self-assessments
- A system for training personnel on key EHS responsibilities, many conducted in real time and task based.
- A means for assessing system effectiveness, proper adjustment to new regulatory developments, and enacting other necessary change.

**GOAL 4: Assess EHS training content – expand, update, modify as necessary for timely, effective, and efficient products with 24/7 customer access to most training modules.**

Due to the wide variety of federal, state and local regulations, the number of tasks and/or situations where EHS typical training is required is extensive. The ability to provide training in a timely and effective manner is one of the most significant components of the university's EHS program. Where applicable, a transition from face-to-face training to web-based training is necessary to reach the vast university audience in a timely manner.

Provision of 'short,' topic-specific safety modules is also a priority. The consistent receipt of all applicable EHS training by all who require such training is a significant challenge. This requires cooperation between EHS and campus supervisors, whether engaged in research or in support organizations, such as Facilities.

Finding effective solutions for providing training, documenting training, and allowing supervision access to training records is an ongoing effort. These efforts continue to receive significant emphasis across the university community and involve multiple departments, with content including, but not limited to EHS content.

**GOAL 5: Make efficient use of existing financial and human resources as well as seek appropriate funding and talent that best serves Florida Tech.**

A budget that will be constrained as university activities continue to grow and the role of EHS expands. Diversified sources of revenue would better support this expanding role and could spread the cost of services across more users.

**Goal 6: Maximize impact through partnerships across the campus.**

Safety promotion and strong environmental management cannot be accomplished by one office alone. EHS has excellent partners campus-wide to help share communication, deliver services, provide feedback, and generally assist with promoting safety and environmental stewardship. To reduce risk in laboratories, EHS partners with campus safety committees - Administrative Advisory and Unit - and the University Research Committees. To help ensure safety in our buildings and work sites, EHS partners with campus organizations such as Facilities, Housing, Athletics, and Student Health.

To achieve the broad strategies of this plan, EHS must continually work with its partners to gather stakeholder input and feedback, and to participate in the implementation process.

**3.0 Florida Tech University Environmental Health and Safety Strategies**

**Strategy 1: Identify environmental health and safety related risks to the campus community.**

1. Utilize input from observations of EHS staff, safety committees, and concerned parties.
  - Initiate focus on identification of high-risk potential in both laboratories and facilities operations. Dedicate adequate attention to minimizing the probability of occurrence.

- Use risk-based criteria to develop annual inspection plans.
- Continue to review inspections programs to maximize coverage of high-risk areas while reducing coverage of low-risk areas for maximize efficiency of EHS manpower.
- 2. Prioritize risks with regards to severity and preparedness.
  - Partner with Insurance and Risk Management and key campus partners.
  - Prioritize for action.
- 3. Adjust corrective action plans as necessary to address priority risks.
  - Propose resources to mitigate priority risks – integrate into annual campus funding planning documents and review sessions.
- 4. Continue to provide and expand useful hazard assessment tools to the research and facilities community, including but not limited to external university hazard assessment tools, before Operations Commence or Change Evaluate, and job hazard analysis.
- 5. Principal Investigators (PIs) and Facilities supervisors assure hazard assessments are conducted where required, obtaining assistance from peers and EHS staff as necessary.
- 6. Update as new risks emerge.

**Strategy 2: Continue to review and update key safety practices and procedures intended for implementation at the department level by the various campus colleges and support departments.**

1. Provide this updated list of practices to the department administration.
2. Prioritize departments in terms of perceived EHS risk, based on the research or support work performed.
3. Visit appropriate personnel involved in documenting and implementing these key procedures on a department wide level. (An example of a key procedure would be department level onboarding of new employees, grad students, visiting scientists, and volunteers, particularly minors.)
4. Assess whether these procedures are implemented in departments in a manner regardless of change in key personnel.
  - Establish / Continue planning meetings with key contacts
  - Safety committees
  - Key department contacts
  - Lab safety contacts

**Strategy 3: Provide useful tools to support students, faculty, staff and campus partners.**

1. Use risk-based criteria to develop periodic inspection plans.
2. Train / Provide tools and assistance to faculty and staff on means and methods for conducting appropriate hazard assessments prior to the start or change of potentially hazardous operations or experiments.
3. Develop and distribute a customer satisfaction survey.
4. Continue to review practices in the Hazardous Waste Management Program and other cost intensive EHS programs for increased efficiencies.
5. Continue implementation and communication of EHS programs via an EHS Management System, based upon Planning, Communication, Action, Follow-up, consistent with quality management principles.

**Strategy 4: Assess EHS training content – expand, update, modify as necessary for timely, effective and efficient products.**

1. Review EHS-related training required and recommended, against federal, state, local and university requirements.
  - Add courses as necessary based on gap analysis.

- Review and evaluate existing courses: required vs recommended; awareness vs task proficiency; online vs in-person. Adapt courses as necessary to meet current customer needs.
- 2. Transform existing face-to-face training programs to on-line, on-demand, computer-based training solutions.
- 3. Provide guidelines to customer departments with implementation of processes that assure all new and temporary employees, visitors, and volunteers receive adequate EHS orientation.
- 4. Continue partnership with the graduate school to assure all graduate students receive timely and appropriate safety orientation/training.
  - Continue to train students working with hazardous materials, equipment, and processes with a focus on quality and safety using preventative methods. Expand beyond the current program to reach a broader audience.
- 5. Continue to partner with University Research Departments in development of Research training modules, including EHS modules, to assure all research staff are properly trained in key compliance-related topics.
- 6. Populate EHS website with appropriate EHS training content.
- 7. Provide short, topic-specific video modules for voluntary use on key safety topics.
- 8. Utilize input from the appropriate safety committee and/or subject matter expert for identification and selection of useful topics.

**Strategy 5: Make efficient use of existing financial and human resources as well as seek appropriate funding.**

1. Diversify the source of revenues to offset the cost of service recipients not supported a general fund.
2. Ensure sustained expertise by developing a recruitment and retention strategy.
3. Continue to maintain and strengthen expertise by supporting training and professional development of EHS staff.
4. Continue to refine an IT system plan, establishing necessary maintenance and replacement of existing applications, as well as the acquisition of new systems.
5. Continue to include robust stakeholder input and feedback when selecting, designing, or implementing software application solutions.

**Strategy 6: EHS must continually work with its partners to gather stakeholder input and feedback, and to participate in the implementation process.**

1. Leverage secondary lab contacts and unit safety committees in ongoing safety oversight and communications.
2. Assist with the occupational health clinic on campus, in partnership with Student Health and Human Resources, to prevent, manage, and treat workplace illnesses and injuries.
3. Maintain high-level teamwork with the research community along with other key campus partners, including but not limited to Facilities, Student Health Services, Housing, Dining, and Athletics.
  - Maintain an active list of key partners.
  - Maximize work efficiencies with these partners.
4. Continue to partner with the Sustainability Office to accomplish EHS objectives while minimizing energy expenditures and increase recycling efforts.
5. Ensure building liaisons and human resources contacts receive updates on EHS processes and procedures as necessary.

**4.0 About Environmental Health and Safety**

Environmental Health and Safety (EHS) administers the occupational health, safety, and environmental management policies and procedures for Florida Tech. Staffed by professionals in radiation safety, biosafety/biomedical, occupational health and safety, fire prevention, laboratory safety, and environmental management. EHS assists the university community in identifying and addressing health and safety issues within offices, laboratories, research stations, and facilities' work sites.

EHS serves as a resource to reduce risks to the safety and health of students, faculty, staff and visitors. EHS plays a vital role in the identification and minimization of risk to property, the environment, and associated business interruption, financial, and reputational risk. This department works closely with Florida Tech's academic research departments, the Facilities Division, the Offices of Academic Affairs, Student Affairs, and Athletics. In addition, EHS collaborates with Student Health Services, Human Resources, and the Office of General Counsel, among others.

#### **Biosafety/Biomedical**

The Biosafety/Biomedical Professionals provides useful tools and applications to aid faculty and staff in maintaining a safe and compliant workplace. Biosafety/Biomedical Personnel helps workers safely manage biological agents and substances present in or arising from the work environment that are hazardous or potentially hazardous to the worker, university, community, and environment.

#### **Environmental Management**

Environmental Management Professionals oversees all environmental compliance programs for the university. They manage hazardous, universal, biological, and radioactive material issues and environmental health programs Florida Tech.

#### **Health and Safety**

Occupational Health and Occupational Safety Professionals lead a wide variety of programs to address both physical and health exposure-related risks and regulations associated with operations performed outside of the laboratory environment on Florida Tech property. Programs include, but are not limited to, indoor air quality, asbestos, lead, hearing conservation, electrical safety, confined spaces, fall protection, accident investigation and recordkeeping, mechanical safety, ergonomics, and work area exposure prevention.

#### **Laboratory Safety**

Laboratory Safety Professionals administers the university's chemical hygiene and safety plans along with lab inspection guidelines. These professionals aid researchers by administering numerous programs dealing with training, hazard assessments, use of personal protective equipment, safe chemical storage and handling procedures, controlled substances, laser safety, compressed gas safety, pressure vessel safety, among others.

#### **Radiation Safety**

The Radiation Safety Professionals assists the research and academic community with radiation related programs. The Radiation Safety Professional provides training and consultations, conducts routine safety inspections in laboratories, assists researchers with the acquisition and disposal of radioactive materials and radiation producing devices, and maintains radiation emergency response capabilities.

### **5.0 Mission and Values**

The mission of the Environmental Health & Safety Department is to ensure the safety of students, staff and visitors to Florida Institute of Technology, and the preservation of the environment by the application of a comprehensive safety program to regulatory and industry standards.

Values:

- Helpful
- Collaborative
- Supportive
- Innovative
- Honest
- Efficient
- Effective
- Respected by our university customers and peers

## **6.0 Purpose and Plan**

The Florida Tech EHS Strategic Safety 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.

### **The EHS Strategic Safety Plan:**

- Validates the mission, goals, and vision of EHS related to achieving appropriate risk reduction and establishing a consistent and lasting culture of safety across the campus community,
- Confirms the values of the organization,
- Establishes departmental and campus goals for reaching the vision, and
- Identifies strategies that can guide EHS toward accomplishing the departmental and campus goals and objectives related to the EHS mission.

### **The Plan Process:**

In March 2019, EHS commenced with a four-month process to develop this strategic safety plan document.

### **Understanding the Environment:**

To define strategies that will successfully lift EHS to its goals, a strong understanding of the current-status of the department is necessary. Documents were gathered and reviewed, including any studies, previous plans, reports, policies, and other mandates. Of interest was any previous strategic safety plans. EHS personnel and stakeholders were interviewed to provide additional input to the process.