

HOW TO USE THE THIS TEMPLATE

This is a guide for supervisors to give direction in building a robust **Work Area Safety Plan (WASP)**. Below, you will find information regarding certain features of this template. Example content IS NOT all inclusive and may not include documents, PPE, hazards, rules, etc. applicable to your work area. Please add this information. On the other hand, please delete content not pertinent to your work area to prevent confusion. Details pertinent to completing the WASP may be found in multiple university OPs (<https://www.depts.ttu.edu/opmanual/contents.php#enviro>) or in the Laboratory Safety Manual (<https://www.ehs.ttu.edu/ehs/ehshome/>). It is the responsibility of the supervisor(s) to review and update the WASP as needed or annually-whichever comes first. Contact EHS with questions.

I. Welcome: This section is for welcoming new personnel to the work area. It can also be used to address management processes such as leave requests, payroll, office hours, regular meetings, conference room scheduling, etc. It also creates a place to clearly lay out expectations for work area personnel for them to reference at any time. There is a section page break after this section so that the following section will start at the top of its own page.

II. General Safety

(A) Contact Information: This section is made to fit on a single page so that it can easily be printed and hung in the lab as required by the CHP.

(C) 1. Refer to <https://www.ehs.ttu.edu/ehs/ehshome/training>, A14 of the CHP or contact EHS at 806.742.3876, safety@ttu.edu or ehs.lab.safety@ttu.edu if you have questions regarding required trainings. Most trainings require periodic renewal. Check all that apply.

2. Enter your work area specific training proficiencies and testing strategy. Indicate how competencies will be evaluated and the frequency at which they will be evaluated. Biosafety Level 2 laboratories are required to document in-lab training and have refreshers annually, when new procedures are used or when existing procedures are modified.

(D & E) These lists are not all-inclusive; modify appropriately for your needs. Procedures to don and doff PPE and assess performance and operate equipment/controls in the work area may be included in section XIV or in a separate SOP document.

(G) There are multiple places in this section that require you to input information for your area.

(H) Example hazards:

<i>Hazard</i>	<i>Details / Source</i>	<i>Mitigation</i>	<i>Reference</i>
Fire: Chemical	Petroleum Ether	Fume Hood PPE:	SDS
Fire: Physical	Bunsen burner Hot plate	Turn off gas when not in use Replace damaged tubing Inspect cords for damage	SOP
Particularly Hazardous Substances	Formaldehyde Ethidium Bromide	Use only in marked, designated area Fume Hood PPE:	SDS & SOP
Burns: Temperature	Liquid Nitrogen	PPE: enhanced Thermo-protective gloves	SOP
Burns: Chemical	Sodium Hydroxide	PPE:	SDS
Sharps	Scalpels Probes Syringes	Secure sharp ends when not in use Determine a neutral zone with passing instruments. Do not recap/remove needles Dispose of in proper sharps container	SOP
Biohazard	S. aureus	Perform aerosolizing procedures in a BSC PPE:	SOP
Biohazard	Human Blood	Perform aerosolizing procedures in a BSC PPE:	SOP
Biohazard	Environmental Samples	Use universal precautions PPE:	SOP

IV. Chemical Safety: Add specifics here for spills, waste, special emergency procedures with exposure, equipment used with chemicals, etc. Occupational Health Program requirements/matters should be addressed in the Occupational Health Program section.

V. Biological Safety: Add specifics for biological safety. Medical surveillance and other Occupational Health Program requirements/matters should be addressed in the Occupational Health Program section. See Section B of the University Laboratory Safety Manual for more information.

VI. Radiation Safety: Add specifics for radiation safety. Occupational Health Program requirements/matters should be addressed in the Occupational Health Program section. See Section C of the University Laboratory Safety Manual.

VII. Laser Safety: Add specifics for LASER safety. Occupational Health Program requirements/matters should be addressed in the Occupational Health Program section. See Section D of the University Laboratory Safety Manual.

VIII. Field Safety: Add specifics here for spills and waste management, equipment or supplies needed in the field, special emergency procedures, transportation practices, etc. Occupational Health Program requirements/matters should be addressed in the Occupational Health Program section.

IX. Studio/Shop/Equipment Safety: Add specifics here for Studio/Shop/Equipment safety. Reference pertinent Ops as needed. Occupational Health Program requirements/matters should be addressed in the Occupational Health Program section.

X. Occupational Health Program: Please go to the EHS website for more information. Call EHS @ 742-3876 if you have questions: <https://www.ehs.ttu.edu/ehs/ehshome/occupationsafety/OccupationHealthProgram>.

XI. Disciplinary Actions: When individuals fail to work safely in the laboratory corrective action must be taken. A reasonable escalation of actions is described in this section. The supervisor is the responsible official and may choose when an escalation is warranted (i.e., 4 violations in 6 months vs 4 violations in 4 years), not to terminate, etc.

XII. Approved Personnel: This section is set apart by page breaks to facilitate printing of multiple copies of this page.

XIV. Work Area Specific SOPs: These may be in a separate binder. You should have SOPs for equipment, all procedures, material handling, experiments, sampling methods, waste management, emergencies, etc. Don't forget SOPs for daily basic items such as housekeeping practices/materials, sample logging, glassware cleaning, etc. This is no such this as a dumb SOP for someone unfamiliar with a work area...just poorly written ones.

It is prudent to include a table like the one below to document acknowledgement of the information and/or proficiency in a certain SOP.

Worker Name	Worker Signature	Date	Supervisor Initial	Date



Work Area Safety Plan

[Primary Investigator / Supervisor Name]

[Building] [Room Number]

*Created By: Creator Name
Creation Date: DDMMYYYY
Last Updated: DDMMYYYY*

I. Welcome and/or Introduction

II. General Safety

A. Designated Responsible Parties and Contact Information

1. PI / Supervisor

Name:

Email:

Office:

Work phone:

24-hr phone:

2. Manager

Name:

Email:

Office:

Work phone:

24-hr phone:

3. Safety Captain

Name:

Email:

Office:

Work phone:

24-hr phone:

4. Department Safety Officer

Name:

Email:

Office:

Work phone:

24-hr phone:

5. Building Manager

Name:

Email:

Office:

Work phone:

24-hr phone:

6. EHS

safety@ttu.edu or ehs.lab.safety@ttu.edu

Business hours: 806.742.3876

Non-business hours: 806.742.3877

7. Physical Plant

24hrs: 806.742.4677

8. Campus Police (TTUPD)

Non-emergency: 806.742.3931

9. Emergency First Responder (Fire, EMT, Police)

FOR EMERGENCIES CALL 911

Give your **NAME**, **LOCATION**, and the **EMERGENCY**

B. Document Location

1. Safety Data Sheets:
2. Standard Operating Procedures:
3. Training Certificates:
4. University Laboratory Safety Manual:
5. BMBL
6. NIH Guidelines
7. [Other Pertinent Work Area Resources]

C. Training Requirements

1. EHS Required Training

- | | |
|--|--|
| <input type="checkbox"/> Art Safety | <input type="checkbox"/> Laser Safety |
| <input type="checkbox"/> Biological Safety | <input type="checkbox"/> Magnetic Field Safety |
| <input type="checkbox"/> Bloodborne Pathogen | <input type="checkbox"/> Radiation Safety |
| <input type="checkbox"/> Compressed Gas Safety | <input type="checkbox"/> Respiratory Safety |
| <input type="checkbox"/> Confined Space | <input type="checkbox"/> Safety Awareness |
| <input type="checkbox"/> Flammable Liquid Safety | <input type="checkbox"/> Shop/Studio Safety |
| <input type="checkbox"/> Hazard Communication | <input type="checkbox"/> |
| <input type="checkbox"/> Hazardous Material Shipping | <input type="checkbox"/> |
| <input type="checkbox"/> Laboratory Safety | <input type="checkbox"/> |

2. Work Area Specific Training

D. Personal Protective Equipment

1. Lab coat
2. Tyvek suit
3. Disposable Gown
4. Coveralls
5. Apron
6. Bonnet / hair cover / beard cover
7. Surgical mask / Dust mask
8. Respirator (X95-X100) / Half- or full-face respirator (must contact EHS-OHP)
9. Safety glasses/OTGs
10. Splash goggles
11. Ear plugs
12. Hard hat
13. Face shield
14. Gloves (nitrile, latex, vinyl, thermal, neoprene, needlestick, etc)
15. Shoe covers
16. Cover sleeves
17. [Other]

E. Engineering Controls

1. Fume Hood
2. Biological Safety Cabinet
3. Centrifuge safety cups or sealable rotor
4. Blast Shield
5. Local exhaust systems
6. Negative-pressured work area
7. Shielding for radiation
8. Glove box
9. Gas cabinet
10. Laminar Flow Clean bench
11. Downdraft table
12. Vacuum line filters
13. Equipment guards
14. Reach assists or guides
15. Presence detectors
16. CO, O₂, H₂S or other sensors
17. Other

F. General Work Area Rules, Policies and Practices

1. Online and area-specific training requirements must be met prior to working.
2. Be familiar with the location of safety equipment and know how to use it. Know building evacuation procedures and where the nearest tornado shelter is located.
3. Immediately notify the supervisor or safety captain in the event of an injury or exposure of any kind. EHS must be notified within 24 hours.
4. Food, drinks, medicines, cosmetics and the like are not permitted to be stored or consumed/applied in the work area. Food or personal-use items used for research purposes must be clearly labeled as such.
5. Proper attire must always be worn. Solid shoes and long pants are required. Garments that expose the skin of legs or feet shall not be worn in chemical handling work areas.
6. Appropriate PPE must be worn by all individuals while in the work area when chemical, physical or biological hazards are not behind a physical barrier.
7. PPE is not to be worn outside of the work area. Carry PPE to secondary locations if needed.
8. Housekeeping shall be done on an ongoing basis.
9. Trip hazards must be removed or mitigated.
10. Ladders, stools and other reach aids are to be used when needed. Tether when required.
11. Equipment is to be used as instructed by the manufacturer. Do not remove guards or other safety features.
12. All chemical containers must be labeled with required information, segregated by their hazard class, and stored in an appropriate manner (See appendix AA of the University Laboratory Safety Manual www.ehs.ttu.edu).
13. Waste is to be segregated (universal, chemical, biological, radioactive, physical.) for proper disposal.
14. All chemical waste containers must be labeled with required sticker, information, segregated by their hazard class and stored in an appropriate manner. Waste is to be removed by EHS after 90 days of accumulation or when the container is $\frac{3}{4}$ full, whichever comes first. Biological waste containers shall not be filled beyond $\frac{3}{4}$ full.
15. Spills shall be addressed immediately. Call EHS if you need assistance or are unsure of how to manage a spill.
16. Always use a mechanical means to handle broken glass. Never handle it directly.
17. Large or heavy items are to be stored as close to ground level as possible to make them easier to move and prevent them from falling.
18. Exits, emergency eyewashes and safety showers, and walkways must be completely unobstructed.
19. Avoid working alone. If this is unavoidable, make sure someone is aware you are working and when you anticipate work to be complete. Check in with them periodically and when work is complete.
20. [Add additional rules/policies here]

G. Emergency Action Plan

Report all emergencies to the Primary Investigator / Supervisor immediately. Notify EHS as soon as possible (no longer than 24hrs).

1. General Medical Emergency Procedures

a) Severe Injuries

Call 911 for assistance and transportation to the nearest emergency room. Accompany the injured person to the medical facility and provide information to emergency personnel about the accident/exposure.

Report the incident to the supervisor and EHS. An incident report will need to be filed immediately. This is especially important for individuals paid by TTU to be eligible for workers' compensation. This form is available on the EHS website at:

<https://www.ehs.ttu.edu/ehs/ehshome/home/IncidentReporting>.

b) Splash to the Eye

Use the emergency eyewash to immediately flush the eye with a gentle stream of clean, temperate water for 15 minutes. Hold the eyelid open. Be careful not to wash the contaminant into the other eye if it was unaffected by the incident. Contact the most convenient local emergency room to obtain care if needed.

Report the accident to the supervisor and EHS. An incident report will need to be filed immediately so that the individual is eligible for workers' compensation. This form is available on the EHS website at: <https://www.ehs.ttu.edu/ehs/ehshome/home/IncidentReporting>.

c) Contamination to the Body

Immediately remove contaminated clothing and drench skin with water. Wash with soap and water, and flush the area for 15 minutes. Contact the most convenient local emergency room to obtain care if needed. Report the injury to the supervisor and to EHS, and seek additional medical assistance if necessary.

Report the accident to the supervisor and EHS. An incident report will need to be filed immediately so that the individual is eligible for workers compensation. This form is available on the EHS website at: <https://www.ehs.ttu.edu/ehs/ehshome/home/IncidentReporting>.

d) Minor incidents

Minor incidents not resulting in bodily harm, personnel exposure or property damage should be reported to the supervisor and then to EHS by using the SCAN system at the following link: <https://www.ehs.ttu.edu/ehs/ehshome/scan/Create>. Examples of such incidents include spills, broken glassware, minor slip/trips/falls not resulting in injury, etc.

2. Fire Procedures

a) Without placing yourself in danger, secure your work and proceed with the "RACE" process:

R – Remove persons from the immediate area

A – Alert others of the situation

C – Contain fire and smoke (shut doors)

E – Evacuate or Extinguish

b) You ARE NOT required to use a fire extinguisher.

Only use an extinguisher if you:

1. Feel confident and not threatened
2. Are knowledgeable and trained on how to properly operate a fire extinguisher, and
3. Using the fire extinguisher does not put you in danger.

c) Activate the building fire alarm and leave the building at once according to building evacuation procedures.

1. (Insert your building evacuation procedures here)

d) Meet the fire department outside and tell them of the fire location and details of any materials potentially involved.

3. Severe Weather Procedures

a) Tornado

In the event tornado sirens sound, gather those in the office or lab with you and proceed QUICKLY AND CALMLY to (insert the building tornado shelter). GO DIRECTLY TO THE SAFE AREA.

- Do not use elevators
- Do not go by your office/car/etc and collect items.

Tornados can develop very rapidly and move very quickly. Do NOT underestimate the storm or overestimate your abilities.

Once gathered in the communal location, sit facing the wall and wait for further instructions.

Duck your head and cover the back of your head with your hands. DO NOT return to the laboratory or offices until the “all clear” is issued.

4. Bomb / Terroristic Threat / Active Shooter Procedures

a) Enter your procedures here

5. Flooding

a) Enter your procedures here

6. Extended Power Loss

In the event of extended power loss to a facility certain precautionary measures should be taken:

a) Unnecessary electrical equipment and appliances should be turned off if power restoration would surge causing damage to electronics and effecting sensitive equipment.

b) Double check equipment on backup-generator power. Upon restoration of power (and heat if applicable):

1. Electronic equipment should be brought up to ambient temperatures before energizing to prevent condensate from forming on circuitry.
2. Fire and potable water piping should be checked by the BUILDING MANAGER for leaks from freeze damage after the heat has been restored to the facility and water turned back on.

H. Laboratory Hazards

<i>Hazard</i>	<i>Details/Source</i>	<i>Mitigation</i>	<i>Reference</i>
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III. Incident and Accident Reporting

EHS must be notified within 24 hours of an accident or incident. Do not hesitate to contact EHS at 742-3876 if you are unsure of how to handle a spill or incident situation.

If even a minor personal injury or exposure results from an incident/accident, an Injury/Illness/Accident Report must be filed within 24 hours. This includes but is not limited to minor cuts, needle sticks, aerosolization exposure, or direct spills. Report forms can be downloaded from EHS's webpage at the following link:

<https://www.ehs.ttu.edu/ehs/ehshome/home/IncidentReporting>

In the event personal injury did not result from the accident/incident, please file a SCAN report: <https://www.ehs.ttu.edu/ehs/ehshome/scan/Create>. This report is for Safety Concerns and Near Misses. You can choose to remain anonymous if you wish.

IV. Chemical Safety

- A. Entry/Exit Procedures - Work area access for workers and non-workers**
- B. Work Area Security**
- C. Safety and Emergency Equipment**
- D. Exposure Management**
- E. Special Procedures for Particularly Hazardous Substances**
- F. Special Procedures for Compressed Gases**
- G. Equipment Use and Decontamination**
- H. Waste Management**
- I. Spill Management**
- J. Chemical Transportation**
- K. [Other items in accordance with the Chemical Hygiene Plan]**

V. Biological Safety

- A. IBC Approval Information**
- B. Entry/Exit Procedures - Work area access for workers and non-workers**
- C. Work Area Security / Biosecurity**
- D. Safety and Emergency Equipment**
- E. Exposure Management and Procedures**
- F. Work Area Housekeeping and Decontamination**
- G. Special Procedures for Managing Biological Substances**
- H. Equipment Use and Decontamination**
- I. Biological Waste Management**
- J. Biological Spill Management**
- K. Transportation of Biological Materials**
- L. [Other items in accordance with the Biological Safety Manual]**

VI. Radiation Safety

- A. IRLSC Approval Information**
- B. Entry/Exit Procedures - Work area access for workers and non-workers**
- C. Work Area Security**
- D. Safety and Emergency Equipment**
- E. Exposure Management and Procedures**
- F. Work Area Housekeeping and Decontamination**
- G. Special Procedures for Managing Radioactive Substances**
- H. Equipment Use and Decontamination**
- I. Radioactive Waste Management**
- J. Radioactive Spill Management**
- K. Transportation of Radioactive Materials**
- L. [Other items in accordance with the Radiation Safety Manual]**

VII. Laser Safety

- A. IRLSC Approval Information**
- B. Entry/Exit Procedures - Work area access for workers and non-workers**
- C. Work Area Security**
- D. Safety and Emergency Equipment**
- E. Exposure Management and Procedures**
- F. Work Area Housekeeping**
- G. Special Procedures for Managing LASERs**
- H. Equipment Use**
- I. [Other items in accordance with the LASER Safety Manual]**

VIII. Field Safety

- A. Entry/Exit Procedures to Field Sites**
- B. Special Permits**
- C. Emergency Action Plan for Field Locations**
- D. Safety and Emergency Equipment**
- E. Exposure Management and Procedures**
- F. Decontamination Procedures**
- G. Transportation Procedures**
- H. Equipment Use and Decontamination**
- I. Waste Management**
- J. Spill Management**
- K. [Other]**

IX. Studio/Shop/Equipment Safety

- A. Work Area Security**
- B. Safety and Emergency Equipment**
- C. Work Area Housekeeping**
- D. Electrical Safety**
- E. Special Procedures for Tool and Equipment Pre-Operation, Use, and Decontamination**
- F. Lockout / Tagout Procedures**
- G. Forklifts**
- H. Compressed Gases**
- I. Waste Management**
- J. Spill Management**
- K. [Other]**

X. Occupational Health Program

A.

XII. Disciplinary Actions

A. 1st violation:

1. Discussion with Supervisor and informal documentation (i.e. email) of the violation
- 2.

B. 2nd violation:

3. Formal documentation (i.e. letter) of the violation signed by the individual and retaking of pertinent training
- 4.

C. 3rd violation:

5. Formal documentation of the violation signed by the individual, retaking of pertinent training and suspension of lab duties without pay until proficiency can be established.
- 6.

D. 4th violation:

7. Termination

XIV. General Safety-Specific SOPs for Work Areas

- A. PPE donning, doffing, disposal and laundering
- B. Hand washing
- C. Autoclave use
- D. Chemical/biological storage
- E. Cryogenic operations
- F. Sharps
- G. Aseptic Technique
- H. Chemical Fume Hood
- I. Biological Safety Cabinet
- J. Centrifuge
- K. [Other].

XV. Work Area Specific SOPs

- A.