

Continuity Planning and Recovery Guide

Laboratories and Research Facilities



DEPARTMENT OF ENVIRONMENTAL HEALTH & SAFETY

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TABLE OF CONTENTS

INTRODUCTION 1

HOW TO USE THE GUIDE 1

GETTING STARTED 2

LABORATORY OR UNIT PROFILE 2

IDENTIFY KEY EMERGENCY CONTACTS 3

CONDUCTING A BUSINESS IMPACT ANALYSIS 5

PRIORITIZING YOUR ESSENTIAL FUNCTIONS 5

DETERMINING ESSENTIAL RESOURCES 19

SPECIALIZED LABORATORY EQUIPMENT 19

TEMPERATURE-SENSITIVE EQUIPMENT 22

SUPPLIES AND VENDORS 25

PROTECT UNIQUE SPECIMENS AND MATERIALS 28

LOSS OF POWER 28

LOSS OF OTHER UTILITIES 29

CONTINUITY PLANNING FOR INFORMATION TECHNOLOGY 31

OTHER VITAL DOCUMENTS 34

PEER SUPPORT 34

EMERGENCY RELOCATION 35

NON-UT DALLAS BACKUP SITES 35

DEVELOPING RECOVERY STRATEGIES AND TASKS 37

EMERGENCY COMMUNICATIONS AND NOTIFICATION 46

LABORATORY “CALL TREE” 46

EMPLOYEE PREPAREDNESS 47

COMPLETE CONTINUITY TRAINING 48

TESTING/EXERCISING YOUR PLAN 48

SUMMARY/NEXT STEPS 49

MITIGATION/FOLLOW-UP ACTIONS 49



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INTRODUCTION

Although infrequent, emergencies of all types and severity occur on campus and can have a devastating impact on you, your work, and your colleagues. Consider the following situations:

- A fire breaks out in your lab or an adjacent lab, forcing you to evacuate the building...
- A sprinkler head malfunctions and floods your lab...
- An ice storm paralyzes campus, closing all roads for three days...
- A pandemic flu has sickened 50% of your staff...

How would you respond to these events? What would you do to prevent a major disruption in research or the loss of valuable work? What would you do to preserve equipment, specimens, and samples?

Knowing what to do and having a plan will help limit disruptions and reduce unacceptable losses in your operations.

Research laboratories are vital to the mission of the University of Texas at Dallas, its funding sponsors, and its many potential benefactors, present and future. Modern laboratories are extremely complex and depend on specialized equipment, supplies, environments, information technology systems, support services, and, of course, highly skilled people. Breakdowns or disruptions in any one of these elements can cause serious harm to ongoing research. Prolonged failures in some of these areas (i.e., loss of electrical power) may eventually lead to irreparable damage to equipment and the potential loss of unique collections of samples and specimens.

This guide has been developed to help laboratory managers, principal investigators, and others, develop a continuity plan to help ensure that vital research operations can continue following a disaster or major disruption.

A continuity plan (CP) is a collection of resources, actions, procedures, and information that is developed, tested, and held in readiness for use in the event of a major disruption of operations. This planning helps prepare the University of Texas at Dallas departments and organizations to maintain essential functions after a disaster or other major disruption. In the event of a major disaster or other disruption, having a continuity plan will minimize the impact and help you return to normal operations as quickly as possible.

A continuity plan is different from an emergency plan. An emergency plan tells you what to do immediately before or during an emergency, like what to do if you see a fire, or what to do during an ice storm. A continuity plan helps you minimize the impact on our operations regardless of the incident and helps you return to normal operations as soon as possible.

HOW TO USE THE GUIDE

This guide will help advise you in the creation of a continuity plan. It includes helpful information as well as useful worksheets to help collect vital information.

As you develop your continuity plan, you will inevitably identify things that are needed to help you be better prepared. It is important to capture these suggestions during the planning process. There is a Mitigation/Follow-Up Actions Worksheet at the back of the guide to help capture and manage the suggestions.

Once you have completed the guide, you will upload the information into the university continuity planning tool. This tool is a cloud-based program that ensures you have uninterrupted access to your information. The system is maintained by the Department of Environmental Health and Safety, Office of Emergency Management and is part of the University of Texas at Dallas' overall emergency management and continuity program. Contact the Office of Emergency Management at emergencymanagement@utdallas.edu for instructions on uploading your plan into the university continuity planning tool.

If you have any questions about this guide, or if you need additional assistance in your continuity planning, please contact the Office of Emergency Management at emergencymanagement@utdallas.edu.

A PDF version of this guide and additional resources are available on the Continuity Planning section of the Department of Environmental Health and Safety website at <http://www.utdallas.edu/ehs/programs/continuity/>.

GETTING STARTED

Developing a continuity plan may seem like an overwhelming task, but in reality you probably already have much of the required information and process. This guide will help walk you through the planning steps in a logical order.

- Don't do this alone. Continuity planning is everyone's responsibility. Develop a planning team to help bring all the pieces together. Consider including your director or manager, lead administrator, and other essential staff.
- Schedule regular meetings with the planning team. Start with one hour meetings once a week for 4 weeks. Add additional meetings as needed.
- Follow this guide and complete the worksheets.
- Review existing procedures. They may provide helpful information for developing your continuity plan.

LABORATORY OR UNIT PROFILE

The Laboratory or Unit Profile provides basic information about your facility as well as information about any existing emergency or business continuity plans.

Task: Complete the Laboratory / Research Unit Profile worksheet below.



| Laboratory / Research Unit Profile | |
|---|-----------------|
| Laboratory name: | |
| Street address: | |
| Building Name: | Room number(s): |
| Mail Stop: | |
| | |
| Principal Investigator: | |
| Lab Manager or Supervisor: | |
| Person to contact to discuss emergency planning: | |
| Total number of staff: | |
| Staff who are part of Lab/Research unit Emergency Response Team: | |
| | |
| Do you have an emergency plan*? <input type="checkbox"/> No <input type="checkbox"/> Yes: Last time it was revised: | |
| Do you have a continuity plan? <input type="checkbox"/> No <input type="checkbox"/> Yes: Last time it was revised: | |
| Does your facility have a backup generator? <input type="checkbox"/> No <input type="checkbox"/> Yes: What does it power: | |

*The Department Safety and Emergency Plan can be found on the Emergency Management website at <http://www.utdallas.edu/safety/programs/emergency/>.

IDENTIFY KEY EMERGENCY CONTACTS

Knowing who to contact in an emergency is critical. Start your continuity planning by identifying the key emergency contacts for your site. Keep a written copy with you at all times and share it with others in your lab. If you are like most people, you probably keep all of your contacts in your cell phone. But what if you lost your phone? Do you have a backup copy of your contacts? How long would it take to reconstruct your contacts list? A little pre-planning now can save valuable time later.

Tip: Consider creating and sharing a Box Folder with critical contact information.

Other Important Contacts

In addition to your emergency contacts, you will also want to maintain updated lists of all employees, students, postdocs, essential vendors, and funding organizations/program officers. Include after-hours contact information if available. Keep copies readily accessible (i.e., Box) in multiple locations. Consider e-mailing the lists to yourself and saving them in a special folder so you can access them from any location. Regularly review and update lists as well as laboratory information and facility contacts cards.

☑ Task: Complete the Key Emergency Contacts Worksheet. Give a copy to everyone on your emergency planning team.

☑ Task: Create contact lists for important contacts (employees, students, postdocs, funding sponsors, etc.)

| Key Emergency Contacts Worksheet | |
|--|---|
| Primary Location (Building & Rooms #s): | |
| Street Address: | |
| Principal Investigator: Name: E-mail: | Business phone: Cell phone: After-hours phone: |
| Laboratory Manager or Senior Researcher: Name: E-mail: | Business phone: Cell Phone: After-hours phone: |
| Lead Administrator: Name: E-mail: | Business phone: Cell phone: After-hours phone: |
| Business Manager: Name: E-mail: | Business phone: Cell phone: After-hours phone: |
| Facilities Superintendent: Name: E-mail: | Business phone: Cell phone: After-hours phone: |
| Office of Research Compliance: Name: E-mail: | Business phone: Cell phone: After-hours phone: |
| Environmental Health and Safety: Name: Mariah Armitage, Director of Emergency Management and Continuity Planning E-mail: mariah.armitage@utdallas.edu | Business phone: 972-883-2420 Cell phone: 469-203-2389 After-hours phone: 469-203-2389 |
| Environmental Health and Safety: Name: Courtney Spooner, Business Services and Continuity Planning Specialist Email:courtney.shaw@utdallas.edu | Business phone: 972-883-2368 Cell phone: 972-689-6291 After-hours phone: 972-689-6291 |
| Environmental Health and Safety: Name: Angela Dees, Emergency Management Specialist E-mail: angela.dees@utdallas.edu | Business phone: 972-883-2831 Cell phone: 214-608-7770 After-hours phone: 214-608-7770 |
| Environmental Health and Safety: Name: David Liner, Director of EH&S E-mail: david.liner@utdallas.edu | Business phone: 972-883-6111 Cell phone: 214-773-3281 After-hours phone: 214-773-3281 |
| Environmental Health and Safety Name: Mark Pace, Fire and Life Safety Manager E-mail: mark.pace@utdallas.edu | Business phone: 972-883-5381 Cell phone: 214-616-1117 After-hours phone: 214-616-1117 |

DETERMINING YOUR ESSENTIAL FUNCTIONS

Essential functions are those services, programs, or activities that are necessary to the ongoing business of the university and would directly affect the success of your department if they were to stop for an extended period of time. The success of your department and the support you provide to the university rely on these functions. Stopping them for an extended period of time would cause harm to your department and the university.

Your essential functions will serve as your guide for how to restart your operations following a disaster or major disruption. They help answer the question “What is the minimum level of service or activity my department must offer to still consider us to be in business?” By identifying and prioritizing your essential functions, you can determine which personnel, facilities, equipment, and materials are absolutely necessary to keep your department functioning following a disaster or major disruption. Prioritizing your functions will also help you determine the recovery time objective (RTO) – the length of time the function can be suspended without causing significant disruption to your operations.

Typical essential functions for research laboratories include, but are not limited to:

- Conduct research
- Order supplies
- Manage staff

In general, you should be able to organize your mission into three to five essential functions; more if you are a highly complex department.

CONDUCTING A BUSINESS IMPACT ANALYSIS

A Business Impact Analysis (BIA) is completed for each essential function to help assess and document potential impacts and negative consequences of a disaster or major disruption on the function. Conducting a BIA also helps establish recovery priorities by looking at dependencies, peak periods, harmful consequences, and financial risks.

PRIORITIZING YOUR ESSENTIAL FUNCTIONS

While everything you do each day may seem essential, in reality, some functions and activities are more essential than others. Some activities can be suspended for several weeks, while others cannot be stopped for more than one day. Knowing the priorities of your functions will help you establish a recovery plan that focuses on the functions that are the most important. Below is general guidance to help you prioritize your functions.



| Priority Rating | Importance | Recovery Time |
|-------------------|--|---------------|
| Critical | Function directly impacts the life, health, safety, or security of the UT Dallas community and stopping would have significant consequences. | < 4 hours |
| High | Function must continue at normal or increased level. Pausing for more than 24 hours may cause significant consequences or serious harm to business operations, upstream and downstream dependent organizations or units, revenue and finances, reputation, or other core mission services. | < 24 hours |
| Medium | Function must be continued if at all possible, perhaps in reduced mode. Stopping for more than one week may cause major disruption to business operations, upstream and downstream dependent organizations or units, revenue and finances, or other core mission services. | < 1 week |
| Low | Function could be suspended for up to one month without causing significant disruption to business operations, upstream and downstream dependent organizations or units, revenue and finances, or other core mission services. | < 1 month |
| Deferrable | Function may pause and resume when conditions permit. Deferring this function for more than one month may cause slight disruption to business operations, upstream and downstream dependent organizations or units, revenue and finances, or other core mission services. | > 1 month |

Task: Complete an Essential Function and Business Impact Analysis Worksheet for each function you have identified.



Essential Function and Business Impact Analysis Worksheet

Instructions: Complete one worksheet for each essential function for your department or unit.

| Organization or Department | | | | | | | | | | | | | | | | | | | |
|--|--|--|-------------|-----|-----------------------------------|--|-----------|-------------------------------|--|------------|--|--|----------|------------------------------|--|-----------|-------------------------------------|--|-----------|
| Essential Function | Conduct Research | | | | | | | | | | | | | | | | | | |
| Brief Description <i>What is this function responsible for? What does it accomplish?</i> | Conduct wet and dry laboratory research and computational research. | | | | | | | | | | | | | | | | | | |
| Priority Rating + RTO <i>RTO =Recovery Time Objective (Maximum time this function can be down before significant problems would occur)</i> | <table border="1"> <thead> <tr> <th>Rating</th> <th>Description</th> <th>RTO</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Critical</td> <td>Directly impacts Life, Health, Safety, or Security. Cannot stop.</td> <td>< 4 Hours</td> </tr> <tr> <td><input type="checkbox"/> High</td> <td>Must continue at normal or increased level. Pausing for more than 24 hours may cause significant consequences or serious harm.</td> <td>< 24 Hours</td> </tr> <tr> <td><input checked="" type="checkbox"/> Medium</td> <td>Must continue if at all possible, perhaps in reduced mode. Stopping for more than one week may cause major disruption.</td> <td>< 1 Week</td> </tr> <tr> <td><input type="checkbox"/> Low</td> <td>May be suspended for up to one month without causing significant disruption.</td> <td>< 1 Month</td> </tr> <tr> <td><input type="checkbox"/> Deferrable</td> <td>May pause and resume when conditions permit.</td> <td>> 1 Month</td> </tr> </tbody> </table> | Rating | Description | RTO | <input type="checkbox"/> Critical | Directly impacts Life, Health, Safety, or Security. Cannot stop. | < 4 Hours | <input type="checkbox"/> High | Must continue at normal or increased level. Pausing for more than 24 hours may cause significant consequences or serious harm. | < 24 Hours | <input checked="" type="checkbox"/> Medium | Must continue if at all possible, perhaps in reduced mode. Stopping for more than one week may cause major disruption. | < 1 Week | <input type="checkbox"/> Low | May be suspended for up to one month without causing significant disruption. | < 1 Month | <input type="checkbox"/> Deferrable | May pause and resume when conditions permit. | > 1 Month |
| | Rating | Description | RTO | | | | | | | | | | | | | | | | |
| | <input type="checkbox"/> Critical | Directly impacts Life, Health, Safety, or Security. Cannot stop. | < 4 Hours | | | | | | | | | | | | | | | | |
| | <input type="checkbox"/> High | Must continue at normal or increased level. Pausing for more than 24 hours may cause significant consequences or serious harm. | < 24 Hours | | | | | | | | | | | | | | | | |
| | <input checked="" type="checkbox"/> Medium | Must continue if at all possible, perhaps in reduced mode. Stopping for more than one week may cause major disruption. | < 1 Week | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Low | May be suspended for up to one month without causing significant disruption. | < 1 Month | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Deferrable | May pause and resume when conditions permit. | > 1 Month | | | | | | | | | | | | | | | | | |
| Key Personnel for this function | Primary: Alternate: Alternate: | | | | | | | | | | | | | | | | | | |
| Key Roles required to perform the function <i>(Admin Asst., RN, manager, financial analysis, etc.)</i> | | | | | | | | | | | | | | | | | | | |
| Vendors vital to this function | | | | | | | | | | | | | | | | | | | |
| RESOURCE REQUIREMENTS | | | | | | | | | | | | | | | | | | | |
| Required OIT Products and Services | <input checked="" type="checkbox"/> Network Services <input checked="" type="checkbox"/> Email <input checked="" type="checkbox"/> Telecom <input checked="" type="checkbox"/> VPN Others: Office 365 | | | | | | | | | | | | | | | | | | |
| Required OIT Applications | SciQuest | | | | | | | | | | | | | | | | | | |
| Essential External Websites | | | | | | | | | | | | | | | | | | | |
| Required Facilities | | | | | | | | | | | | | | | | | | | |
| Vital Records and Private Information | | | | | | | | | | | | | | | | | | | |
| DEPENDANCIES and PEAK PERIODS | | | | | | | | | | | | | | | | | | | |
| Upstream Dependencies <i>Other departments vital to this function that you rely on.</i> | | | | | | | | | | | | | | | | | | | |



| | |
|---|--|
| Downstream Dependencies <i>Other departments that rely on this Function</i> | |
| Peak Periods <i>Significant or demanding months for this function</i> | |

HARMFUL CONSEQUENCES

Suppose the essential function is not resumed quickly following a major disruption or disaster. Which of the listed harmful consequences might occur and how long after the disaster might the harm begin to occur? Check (X) the box to indicate when harm might occur. Select N/A if the consequence does not apply to the essential function you are evaluating.

| | Possible Harmful Consequence | How long after a disaster might the harm occur? | | | | | | Comments |
|----|--|--|----------|--------|---------|---------|---------|-----------------|
| | | N/A | 0-2 Days | 1 Week | 2 Weeks | 3 Weeks | 4 Weeks | |
| 1 | Disruption of teaching? | | | | | | | |
| 2 | Disruption of research? | | | | | | | |
| 3 | Departure of faculty? | | | | | | | |
| 4 | Departure of staff? | | | | | | | |
| 5 | Departure of students? | | | | | | | |
| 6 | Well-being of staff/faculty? | | | | | | | |
| 7 | Well-being of students? | | | | | | | |
| 8 | Payment deadlines unmet by campus? | | | | | | | |
| 9 | Loss of revenue to campus? | | | | | | | |
| 10 | Legal obligations unmet by campus? | | | | | | | |
| 11 | Legal harm to the University? | | | | | | | |
| 12 | Impact on other campus unit(s)? | | | | | | | |
| 13 | Impact on important business partner(s)? | | | | | | | |
| 14 | Impact on UTD's brand image? | | | | | | | |
| 15 | Function Without Power? | | | | | | | |
| 16 | Other harmful consequence? | | | | | | | |

FINANCIAL IMPACTS

Suppose the essential function is not resumed quickly following a disaster. What might be the financial consequences for each time period, if any, if this function is not restored? Check (X) the box to indicate the possible financial impact.

| Loss of Revenue <i>How much revenue would the department or the university lose in each time period?</i> | None | < \$10k | \$10k - \$50k | \$50k - \$250k | \$250k - \$500k | >\$500k |
|--|------|---------|---------------|----------------|-----------------|---------|
| Up to 1 Week: | | | | | | |
| 1 - 4 Weeks: | | | | | | |
| 1 - 3 Months: | | | | | | |



| | | | | | | |
|---|-------------|-------------------|----------------------|-----------------------|------------------------|-------------------|
| 3 - 6 Months: | | | | | | |
| Delayed Receipts <i>If unknown, skip this section.</i> | None | < \$10k | \$10k - \$50k | \$50k - \$250k | \$250k - \$500k | >\$500k |
| Up to 1 Week: | | | | | | |
| 1 - 4 Weeks: | | | | | | |
| 1 - 3 Months: | | | | | | |
| 3 - 6 Months: | | | | | | |
| Operational Costs <i>Costs the department or university might incur if the function is not restored quickly? Skip if unknown.</i> | None | < \$10k | \$10k - \$50k | \$50k - \$250k | \$250k - \$500k | >\$500k |
| Up to 1 Week: | | | | | | |
| 1 - 4 Weeks: | | | | | | |
| 1 - 3 Months: | | | | | | |
| 3 - 6 Months: | | | | | | |



Essential Function and Business Impact Analysis Worksheet

Instructions: Complete one worksheet for each essential function for your department or unit.

| Organization or Department | | | | | | | | | | | | | | | | | | | |
|--|--|--|-------------|-----|-----------------------------------|--|-----------|-------------------------------|--|------------|--|--|----------|------------------------------|--|-----------|-------------------------------------|--|-----------|
| Essential Function Materials Management | | | | | | | | | | | | | | | | | | | |
| Brief Description <i>What is this function responsible for? What does it accomplish?</i> | Ordering, receiving, inventory, maintenance, of supplies & equipment. | | | | | | | | | | | | | | | | | | |
| Priority Rating + RTO <i>RTO =Recovery Time Objective (Maximum time this function can be down before significant problems would occur)</i> | <table border="1"> <thead> <tr> <th>Rating</th> <th>Description</th> <th>RTO</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Critical</td> <td>Directly impacts Life, Health, Safety, or Security. Cannot stop.</td> <td>< 4 Hours</td> </tr> <tr> <td><input type="checkbox"/> High</td> <td>Must continue at normal or increased level. Pausing for more than 24 hours may cause significant consequences or serious harm.</td> <td>< 24 Hours</td> </tr> <tr> <td><input checked="" type="checkbox"/> Medium</td> <td>Must continue if at all possible, perhaps in reduced mode. Stopping for more than one week may cause major disruption.</td> <td>< 1 Week</td> </tr> <tr> <td><input type="checkbox"/> Low</td> <td>May be suspended for up to one month without causing significant disruption.</td> <td>< 1 Month</td> </tr> <tr> <td><input type="checkbox"/> Deferrable</td> <td>May pause and resume when conditions permit.</td> <td>> 1 Month</td> </tr> </tbody> </table> | Rating | Description | RTO | <input type="checkbox"/> Critical | Directly impacts Life, Health, Safety, or Security. Cannot stop. | < 4 Hours | <input type="checkbox"/> High | Must continue at normal or increased level. Pausing for more than 24 hours may cause significant consequences or serious harm. | < 24 Hours | <input checked="" type="checkbox"/> Medium | Must continue if at all possible, perhaps in reduced mode. Stopping for more than one week may cause major disruption. | < 1 Week | <input type="checkbox"/> Low | May be suspended for up to one month without causing significant disruption. | < 1 Month | <input type="checkbox"/> Deferrable | May pause and resume when conditions permit. | > 1 Month |
| | Rating | Description | RTO | | | | | | | | | | | | | | | | |
| | <input type="checkbox"/> Critical | Directly impacts Life, Health, Safety, or Security. Cannot stop. | < 4 Hours | | | | | | | | | | | | | | | | |
| | <input type="checkbox"/> High | Must continue at normal or increased level. Pausing for more than 24 hours may cause significant consequences or serious harm. | < 24 Hours | | | | | | | | | | | | | | | | |
| | <input checked="" type="checkbox"/> Medium | Must continue if at all possible, perhaps in reduced mode. Stopping for more than one week may cause major disruption. | < 1 Week | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Low | May be suspended for up to one month without causing significant disruption. | < 1 Month | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Deferrable | May pause and resume when conditions permit. | > 1 Month | | | | | | | | | | | | | | | | | |
| Key Personnel for this function Primary: Alternate: Alternate: | | | | | | | | | | | | | | | | | | | |
| Key Roles required to perform the function <i>(Admin Asst., RN, manager, financial analysis, etc.)</i> | | | | | | | | | | | | | | | | | | | |
| Vendors vital to this function | | | | | | | | | | | | | | | | | | | |
| RESOURCE REQUIREMENTS | | | | | | | | | | | | | | | | | | | |
| Required OIT Products and Services | <input checked="" type="checkbox"/> Network Services <input checked="" type="checkbox"/> Email <input checked="" type="checkbox"/> Telecom <input checked="" type="checkbox"/> VPN Others: Office 365 | | | | | | | | | | | | | | | | | | |
| Required OIT Applications | SciQuest | | | | | | | | | | | | | | | | | | |
| Essential External Websites | | | | | | | | | | | | | | | | | | | |
| Required Facilities | | | | | | | | | | | | | | | | | | | |
| Vital Records and Private Information | | | | | | | | | | | | | | | | | | | |
| DEPENDANCIES and PEAK PERIODS | | | | | | | | | | | | | | | | | | | |
| Upstream Dependencies <i>Other departments vital to this function that you rely on.</i> | | | | | | | | | | | | | | | | | | | |



| | |
|---|--|
| Downstream Dependencies <i>Other departments that rely on this Function</i> | |
| Peak Periods <i>Significant or demanding months for this function</i> | |

HARMFUL CONSEQUENCES

Suppose the essential function is not resumed quickly following a major disruption or disaster. Which of the listed harmful consequences might occur and how long after the disaster might the harm begin to occur? Check (X) the box to indicate when harm might occur. Select N/A if the consequence does not apply to the essential function you are evaluating.

| Possible Harmful Consequence | | How long after a disaster might the harm occur? | | | | | | Comments |
|-------------------------------------|--|--|-----------------|---------------|----------------|----------------|----------------|-----------------|
| | | N/A | 0-2 Days | 1 Week | 2 Weeks | 3 Weeks | 4 Weeks | |
| 1 | Disruption of teaching? | | | | | | | |
| 2 | Disruption of research? | | | | | | | |
| 3 | Departure of faculty? | | | | | | | |
| 4 | Departure of staff? | | | | | | | |
| 5 | Departure of students? | | | | | | | |
| 6 | Well-being of staff/faculty? | | | | | | | |
| 7 | Well-being of students? | | | | | | | |
| 8 | Payment deadlines unmet by campus? | | | | | | | |
| 9 | Loss of revenue to campus? | | | | | | | |
| 10 | Legal obligations unmet by campus? | | | | | | | |
| 11 | Legal harm to the University? | | | | | | | |
| 12 | Impact on other campus unit(s)? | | | | | | | |
| 13 | Impact on important business partner(s)? | | | | | | | |
| 14 | Impact on UTD's brand image? | | | | | | | |
| 15 | Function Without Power? | | | | | | | |
| 16 | Other harmful consequence? | | | | | | | |

FINANCIAL IMPACTS

Suppose the essential function is not resumed quickly following a disaster. What might be the financial consequences for each time period, if any, if this function is not restored? Check (X) the box to indicate the possible financial impact.

| Loss of Revenue <i>How much revenue would the department or the university lose in each time period?</i> | None | < \$10k | \$10k - \$50k | \$50k - \$250k | \$250k - \$500k | >\$500k |
|--|-------------|-------------------|----------------------|-----------------------|------------------------|-------------------|
| Up to 1 Week: | | | | | | |
| 1 - 4 Weeks: | | | | | | |



| | | | | | | |
|---|-------------|-------------------|----------------------|-----------------------|------------------------|-------------------|
| 1 - 3 Months: | | | | | | |
| 3 - 6 Months: | | | | | | |
| Delayed Receipts <i>If unknown, skip this section.</i> | None | < \$10k | \$10k - \$50k | \$50k - \$250k | \$250k - \$500k | >\$500k |
| Up to 1 Week: | | | | | | |
| 1 - 4 Weeks: | | | | | | |
| 1 - 3 Months: | | | | | | |
| 3 - 6 Months: | | | | | | |
| Operational Costs <i>Costs the department or university might incur if the function is not restored quickly? Skip if unknown.</i> | None | < \$10k | \$10k - \$50k | \$50k - \$250k | \$250k - \$500k | >\$500k |
| Up to 1 Week: | | | | | | |
| 1 - 4 Weeks: | | | | | | |
| 1 - 3 Months: | | | | | | |
| 3 - 6 Months: | | | | | | |



Essential Function and Business Impact Analysis Worksheet

Instructions: Complete one worksheet for each essential function for your department or unit

| Organization or Department | | | | | | | | | | | | | | | | | | | |
|---|--|--|-------------|-----|-----------------------------------|--|-----------|-------------------------------|--|------------|--|--|----------|------------------------------|--|-----------|-------------------------------------|--|-----------|
| Essential Function | Business Operations (Optional) | | | | | | | | | | | | | | | | | | |
| Brief Description <i>What is this function responsible for? What does it accomplish?</i> | Business operations support (Admin, Grants, etc.) | | | | | | | | | | | | | | | | | | |
| Priority Rating + RTO <i>RTO =Recovery Time Objective (Maximum time this function can be down before significant problems would occur)</i> | <table border="1"> <thead> <tr> <th>Rating</th> <th>Description</th> <th>RTO</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Critical</td> <td>Directly impacts Life, Health, Safety, or Security. Cannot stop.</td> <td>< 4 Hours</td> </tr> <tr> <td><input type="checkbox"/> High</td> <td>Must continue at normal or increased level. Pausing for more than 24 hours may cause significant consequences or serious harm.</td> <td>< 24 Hours</td> </tr> <tr> <td><input checked="" type="checkbox"/> Medium</td> <td>Must continue if at all possible, perhaps in reduced mode. Stopping for more than one week may cause major disruption.</td> <td>< 1 Week</td> </tr> <tr> <td><input type="checkbox"/> Low</td> <td>May be suspended for up to one month without causing significant disruption.</td> <td>< 1 Month</td> </tr> <tr> <td><input type="checkbox"/> Deferrable</td> <td>May pause and resume when conditions permit.</td> <td>> 1 Month</td> </tr> </tbody> </table> | Rating | Description | RTO | <input type="checkbox"/> Critical | Directly impacts Life, Health, Safety, or Security. Cannot stop. | < 4 Hours | <input type="checkbox"/> High | Must continue at normal or increased level. Pausing for more than 24 hours may cause significant consequences or serious harm. | < 24 Hours | <input checked="" type="checkbox"/> Medium | Must continue if at all possible, perhaps in reduced mode. Stopping for more than one week may cause major disruption. | < 1 Week | <input type="checkbox"/> Low | May be suspended for up to one month without causing significant disruption. | < 1 Month | <input type="checkbox"/> Deferrable | May pause and resume when conditions permit. | > 1 Month |
| | Rating | Description | RTO | | | | | | | | | | | | | | | | |
| | <input type="checkbox"/> Critical | Directly impacts Life, Health, Safety, or Security. Cannot stop. | < 4 Hours | | | | | | | | | | | | | | | | |
| | <input type="checkbox"/> High | Must continue at normal or increased level. Pausing for more than 24 hours may cause significant consequences or serious harm. | < 24 Hours | | | | | | | | | | | | | | | | |
| | <input checked="" type="checkbox"/> Medium | Must continue if at all possible, perhaps in reduced mode. Stopping for more than one week may cause major disruption. | < 1 Week | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Low | May be suspended for up to one month without causing significant disruption. | < 1 Month | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Deferrable | May pause and resume when conditions permit. | > 1 Month | | | | | | | | | | | | | | | | | |
| Key Personnel for this function Primary: Alternate: Alternate: | | | | | | | | | | | | | | | | | | | |
| Key Roles required to perform the function <i>(Admin Asst., RN, manager, financial analysis, etc.)</i> | | | | | | | | | | | | | | | | | | | |
| Vendors vital to this function | | | | | | | | | | | | | | | | | | | |
| RESOURCE REQUIREMENTS | | | | | | | | | | | | | | | | | | | |
| Required OIT Products and Services | <input checked="" type="checkbox"/> Network Services <input checked="" type="checkbox"/> Email <input checked="" type="checkbox"/> Telecom <input checked="" type="checkbox"/> VPN Others: Office 365 | | | | | | | | | | | | | | | | | | |
| Required OIT Applications | SciQuest | | | | | | | | | | | | | | | | | | |
| Essential External Websites | | | | | | | | | | | | | | | | | | | |
| Required Facilities | | | | | | | | | | | | | | | | | | | |
| Vital Records and Private Information | | | | | | | | | | | | | | | | | | | |
| DEPENDANCIES and PEAK PERIODS | | | | | | | | | | | | | | | | | | | |
| Upstream Dependencies <i>Other departments vital to this function that you rely on.</i> | | | | | | | | | | | | | | | | | | | |



| | |
|---|--|
| Downstream Dependencies <i>Other departments that rely on this Function</i> | |
| Peak Periods <i>Significant or demanding months for this function</i> | |

HARMFUL CONSEQUENCES

Suppose the essential function is not resumed quickly following a major disruption or disaster. Which of the listed harmful consequences might occur and how long after the disaster might the harm begin to occur? Check (X) the box to indicate when harm might occur. Select N/A if the consequence does not apply to the essential function you are evaluating.

| Possible Harmful Consequence | | How long after a disaster might the harm occur? | | | | | | | Comments |
|------------------------------|--|---|----------|--------|---------|---------|---------|-----------|----------|
| | | N/A | 0-2 Days | 1 Week | 2 Weeks | 3 Weeks | 4 Weeks | > 4 Weeks | |
| 1 | Disruption of teaching? | | | | | | | | |
| 2 | Disruption of research? | | | | | | | | |
| 3 | Departure of faculty? | | | | | | | | |
| 4 | Departure of staff? | | | | | | | | |
| 5 | Departure of students? | | | | | | | | |
| 6 | Well-being of staff/faculty? | | | | | | | | |
| 7 | Well-being of students? | | | | | | | | |
| 8 | Payment deadlines unmet by campus? | | | | | | | | |
| 9 | Loss of revenue to campus? | | | | | | | | |
| 10 | Legal obligations unmet by campus? | | | | | | | | |
| 11 | Legal harm to the University? | | | | | | | | |
| 12 | Impact on other campus unit(s)? | | | | | | | | |
| 13 | Impact on important business partner(s)? | | | | | | | | |
| 14 | Impact on UTD's brand image? | | | | | | | | |
| 15 | Function Without Power? | | | | | | | | |
| 16 | Other harmful consequence? | | | | | | | | |

FINANCIAL IMPACTS

Suppose the essential function is not resumed quickly following a disaster. What might be the financial consequences for each time period, if any, if this function is not restored? Check (X) the box to indicate the possible financial impact.

| Loss of Revenue <i>How much revenue would the department or the university lose in each time period?</i> | None | < \$10k | \$10k - \$50k | \$50k - \$250k | \$250k - \$500k | >\$500k |
|---|------|---------|---------------|----------------|-----------------|---------|
| Up to 1 Week: | | | | | | |
| 1 - 4 Weeks: | | | | | | |



| | | | | | | |
|---|-------------|-------------------|----------------------|-----------------------|------------------------|-------------------|
| 1 - 3 Months: | | | | | | |
| 3 - 6 Months: | | | | | | |
| Delayed Receipts <i>If unknown, skip this section.</i> | None | < \$10k | \$10k - \$50k | \$50k - \$250k | \$250k - \$500k | >\$500k |
| Up to 1 Week: | | | | | | |
| 1 - 4 Weeks: | | | | | | |
| 1 - 3 Months: | | | | | | |
| 3 - 6 Months: | | | | | | |
| Operational Costs <i>Costs the department or university might incur if the function is not restored quickly? Skip if unknown.</i> | None | < \$10k | \$10k - \$50k | \$50k - \$250k | \$250k - \$500k | >\$500k |
| Up to 1 Week: | | | | | | |
| 1 - 4 Weeks: | | | | | | |
| 1 - 3 Months: | | | | | | |
| 3 - 6 Months: | | | | | | |



Essential Function and Business Impact Analysis Worksheet

Instructions: Complete one worksheet for each essential function for your department or unit

| Organization or Department | | | |
|--|--|--|------------|
| Essential Function | | | |
| Brief Description <i>What is this function responsible for? What does it accomplish?</i> | | | |
| Priority Rating + RTO <i>RTO =Recovery Time Objective (Maximum time this function can be down before significant problems would occur)</i> | Rating | Description | RTO |
| | <input type="checkbox"/> Critical | Directly impacts Life, Health, Safety, or Security. Cannot stop. | < 4 Hours |
| | <input type="checkbox"/> High | Must continue at normal or increased level. Pausing for more than 24 hours may cause significant consequences or serious harm. | < 24 Hours |
| | <input type="checkbox"/> Medium | Must continue if at all possible, perhaps in reduced mode. Stopping for more than one week may cause major disruption. | < 1 Week |
| | <input type="checkbox"/> Low | May be suspended for up to one month without causing significant disruption. | < 1 Month |
| <input type="checkbox"/> Deferrable | May pause and resume when conditions permit. | > 1 Month | |
| Key Personnel for this function | Primary: Alternate: Alternate: | | |
| Key Roles required to perform the function <i>(Admin Asst., RN, manager, financial analysis, etc.)</i> | | | |
| Vendors vital to this function | | | |
| RESOURCE REQUIREMENTS | | | |
| Required OIT Products and Services | <input checked="" type="checkbox"/> Network Services <input checked="" type="checkbox"/> Email <input checked="" type="checkbox"/> Telecom <input checked="" type="checkbox"/> VPN Others: Office 365 | | |
| Required OIT Applications | SciQuest | | |
| Essential External Websites | | | |
| Required Facilities | | | |
| Vital Records and Private Information | | | |
| DEPENDANCIES and PEAK PERIODS | | | |
| Upstream Dependencies <i>Other departments vital to this function that you rely on.</i> | | | |



| | |
|---|--|
| Downstream Dependencies <i>Other departments that rely on this Function</i> | |
| Peak Periods <i>Significant or demanding months for this function</i> | |

HARMFUL CONSEQUENCES

Suppose the essential function is not resumed quickly following a major disruption or disaster. Which of the listed harmful consequences might occur and how long after the disaster might the harm begin to occur? Check (X) the box to indicate when harm might occur. Select N/A if the consequence does not apply to the essential function you are evaluating.

| Possible Harmful Consequence | | How long after a disaster might the harm occur? | | | | | | | Comments |
|-------------------------------------|--|--|-----------------|---------------|----------------|----------------|----------------|---------------------|-----------------|
| | | N/A | 0-2 Days | 1 Week | 2 Weeks | 3 Weeks | 4 Weeks | > 4 Weeks | |
| 1 | Disruption of teaching? | | | | | | | | |
| 2 | Disruption of research? | | | | | | | | |
| 3 | Departure of faculty? | | | | | | | | |
| 4 | Departure of staff? | | | | | | | | |
| 5 | Departure of students? | | | | | | | | |
| 6 | Well-being of staff/faculty? | | | | | | | | |
| 7 | Well-being of students? | | | | | | | | |
| 8 | Payment deadlines unmet by campus? | | | | | | | | |
| 9 | Loss of revenue to campus? | | | | | | | | |
| 10 | Legal obligations unmet by campus? | | | | | | | | |
| 11 | Legal harm to the University? | | | | | | | | |
| 12 | Impact on other campus unit(s)? | | | | | | | | |
| 13 | Impact on important business partner(s)? | | | | | | | | |
| 14 | Impact on UT Dallas's brand image? | | | | | | | | |
| 15 | Function Without Power? | | | | | | | | |
| 16 | Other harmful consequence? | | | | | | | | |

FINANCIAL IMPACTS

Suppose the essential function is not resumed quickly following a disaster. What might be the financial consequences for each time period, if any, if this function is not restored? Check (X) the box to indicate the possible financial impact.

| Loss of Revenue <i>How much revenue would the department or the university lose in each time period?</i> | None | < \$10k | \$10k - \$50k | \$50k - \$250k | \$250k - \$500k | >\$500k |
|--|-------------|-------------------|----------------------|-----------------------|------------------------|-------------------|
| Up to 1 Week: | | | | | | |



| | | | | | | |
|---|-------------|-------------------|----------------------|-----------------------|------------------------|-------------------|
| 1 - 4 Weeks: | | | | | | |
| 1 - 3 Months: | | | | | | |
| 3 - 6 Months: | | | | | | |
| Delayed Receipts <i>If unknown, skip this section.</i> | None | < \$10k | \$10k - \$50k | \$50k - \$250k | \$250k - \$500k | >\$500k |
| Up to 1 Week: | | | | | | |
| 1 - 4 Weeks: | | | | | | |
| 1 - 3 Months: | | | | | | |
| 3 - 6 Months: | | | | | | |
| Operational Costs <i>Costs the department or university might incur if the function is not restored quickly? Skip if unknown.</i> | None | < \$10k | \$10k - \$50k | \$50k - \$250k | \$250k - \$500k | >\$500k |
| Up to 1 Week: | | | | | | |
| 1 - 4 Weeks: | | | | | | |
| 1 - 3 Months: | | | | | | |
| 3 - 6 Months: | | | | | | |

DETERMINING ESSENTIAL RESOURCES

Knowing your essential functions and their criticality/priority rating is the first step in creating a continuity plan. Next, you will want to determine what essential resources are needed for each function. Resources can be broken down into three main categories – People, Places, and Things. Things include equipment, supplies, vendors, and IT applications and services. A brief list of your essential resources is included on the Essential Function and BIA Worksheet, but you will want to track your essential resources like equipment, supplies, and vendors in more detail. The following section provides additional information about how to identify and track your most essential resources.

SPECIALIZED LABORATORY EQUIPMENT

Many labs rely on highly specialized equipment. Some of these are one-of-a-kind while others are fairly common, but very expensive. Consider the most important equipment in your lab. How would you continue your research if it were damaged or destroyed? How long would it take to replace? What would you do while waiting for the new equipment to be installed? Having a detailed inventory of your essential equipment and a backup plan can help minimize the effects of a disaster or other emergency.

Continuity Considerations

- Maintain a list of specialized equipment that your laboratory relies on. Include information such as make, model, serial number, and where it was purchased. *Complete the Specialized Equipment Worksheet below.*
- For equipment purchased through Procurement, determine if the information is still maintained in their system. Contact your business office to request a report of your recent SciQuest purchases.
- Determine if your building has alternate backup emergency power such as a generator. *See Loss of Power below for additional information.*
- Determine if critical equipment is connected to backup or emergency power.
- For highly customized equipment or experimental apparatus, keep duplicate copies of drawings, diagrams, plans, or specifications in a secure off-site location. Scan information if possible and store off site or on an encrypted USB storage device.
- Identify equipment with special utility requirements, such as process chilled water, high voltage, three phase power, etc.
- Ensure that equipment warranties and extended service and maintenance contracts are in force and kept up to date.
- Establish or adopt industry recommendations for routine calibration, testing, and preventive maintenance, and ensure they get done.
- Keep copies of the inventory readily accessible in multiple locations.

Task: Complete the Specialized Equipment Worksheet for your facility.



Specialized Equipment Worksheet

Instructions: List the specialized, hard-to-replace equipment used by your department or unit

| Equipment | Model # | Serial # | Supplier | Purchased through UTD Procurement? | Inventory ID # | Special Requirements |
|-----------|---------|----------|----------|------------------------------------|----------------|----------------------|
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TEMPERATURE-SENSITIVE EQUIPMENT

Most laboratories today rely on an array of temperature-sensitive equipment. Consider what would happen if this equipment failed. How would it impact your research? Having a detailed inventory of temperature-sensitive equipment and a backup plan can help minimize the effects of a disaster or other emergency.

Continuity Considerations

- Maintain a list of all of the equipment containing temperature-sensitive specimens/materials (i.e., refrigerators, freezers, incubators, etc.). *Complete the Temperature-Sensitive Equipment Worksheet below.*
- Be aware of the emergency power systems for your locations and what equipment is connected to it. See *Loss of Power below for additional information.*
- Ensure that temperature-monitoring alarms, if equipped, are working. Consider contracting for remote monitoring through an outside vendor if necessary.
- Know the maximum length of time the equipment can be without power, but still maintain acceptable temperature.
- Maintain a list of all of your temperature-sensitive specimens/materials in each location and the approximate time limit before the specimens/materials will be adversely affected by a temperature change. This will help you to prioritize the relocation of specimens/materials if necessary.

Task: Complete the Temperature-Sensitive Equipment Worksheet for your facility.

Task: Complete the Temperature-Sensitive Materials Worksheet for your facility.



Temperature-Sensitive Equipment Worksheet

Instructions: List the temperature-sensitive equipment used by your department or unit

| Temperature-Sensitive Equipment <i>Equipment Name, ID #, Location, etc.</i> | Connected to Back- Up Power? | Connected to Temperature Alarm? | Max. Time Without Power | Other Information |
|--|------------------------------------|---------------------------------------|-------------------------------|-------------------|
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Temperature-Sensitive Materials Worksheet

Instructions: *List the temperature-sensitive equipment used by your department or unit*

| Temperature-Sensitive Materials <i>Material Name</i> | Location of Material | How Long Before Material is Affected by Temperature Change? | Other Information |
|---|----------------------|---|-------------------|
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SUPPLIES AND VENDORS

Laboratories require highly specialized equipment, chemicals, samples, and other materials, as well as specialized vendors. Consider how you would operate if your routine supply chains were disrupted. How long can you manage before placing your next order? What would you do if your normal supplier was no longer available?

Continuity Considerations

- Identify specialized supplies that you rely on. This include supplies that are difficult to obtain, require special authorization or handling, or are only available from limited vendors. *Complete the Specialized Supplies Worksheet below.*
- Identify key vendors of essential equipment, supplies, and service contracts. Contact your business office to request a report of your recent SciQuest purchases. *Complete the Essential Vendors Worksheet below.*
- Develop contact lists including routine and emergency after-hours contact information.
- Identify an alternate backup vendor for essential must-have items.
- Where feasible, increase standing inventories of crucial supplies and reagents, especially those that typically rely on just-in-time ordering.
- Review and update all contact lists on a regular basis.
- Keep copies of contact lists readily accessible in multiple locations. Share with others in your lab.
- Have a conversation with your suppliers about their continuity plan. Propose the same scenario and ask how they plan to maintain deliveries of supplies following a disaster or other interruption to their business.

Task: Complete the Specialized Supplies Worksheet for your facility.

Task: Complete the Essential Vendors Worksheet for your facility.



Specialized Supplies Worksheet

Instructions: List all of the specialized supplies used by your department or unit. Create an Excel spreadsheet if your list is extensive.

| Specialized Supplies | | | |
|----------------------|-------------------|-----------------|----------------------|
| Item | Vendor / Supplier | Ordered Through | Special Instructions |
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Essential Vendors Worksheet

Instructions: List all of the essential vendors used by your department or unit. Create an Excel spreadsheet if your list is extensive.

| Essential Vendors | | | |
|-------------------|-------------|--------------|---|
| Company Name | Description | Contact Name | Contact Info |
| | | | Business phone: Cell phone: E-mail: After-hours #: |
| | | | Business phone: Cell phone: E-mail: After-hours #: |
| | | | Business phone: Cell phone: E-mail: After-hours #: |
| | | | Business phone: Cell phone: E-mail: After-hours #: |
| | | | Business phone: Cell phone: E-mail: After-hours #: |
| | | | Business phone: Cell phone: E-mail: After-hours #: |
| | | | Business phone: Cell phone: E-mail: After-hours #: |
| | | | Business phone: Cell phone: E-mail: After-hours #: |

PROTECT UNIQUE SPECIMENS AND MATERIALS

Live, fixed, and frozen samples/specimens are extremely important and invaluable assets of many laboratories. Researchers collecting, developing, generating, or otherwise in possession of such materials have a high level of responsibility for their protection and future availability.

Continuity Considerations

- Maintain accurate inventory records for unique specimens and materials.
- Properly maintain and service all equipment and devices that secure these materials.
- Develop redundant storage for irreplaceable specimens (animals, plants, cell lines, DNA, etc.), if possible, preferably both on- and off-site to maximize protection. Considering splitting the storage of vital specimens -- separating the specimens and storing separate collections in different locations.
- Develop emergency procedures that outline what to do with your specimens and how to shut down your workstation and laboratory in the event of a disaster or major disruption.

LOSS OF POWER

One of the biggest concerns of any laboratory manager or research scientist is the thought of a power outage. A power outage creates the potential for loss of valuable specimens and years of research. At some point during your research you could lose power in your laboratory due to extreme weather, rolling blackouts, or equipment malfunctions. You can lessen the effects of a power outage, and your chances of losing your hard work, by being prepared and following some easy procedures.

Continuity Considerations

- Be familiar with the emergency backup power system(s) for your area, including what is covered and how long the backup power can be relied upon. Contact your facilities manager or superintendent if unsure about backup power for your location.
- Verify that freezers, refrigerators, incubators, and other temperature-sensitive equipment holding critical materials are connected to an emergency power supply, if available for your lab. Consult with your facilities manager or superintendent before connecting equipment to emergency power outlets to avoid overloading circuits.
- Install uninterruptible power supply (UPS) for equipment highly sensitive to slight power delays or fluctuations.
- Know how long freezers, refrigerators, incubators, etc. NOT connected to emergency power supply will maintain proper temperatures in the event of a power failure.
- Maintain a list of essential equipment that may be damaged by a power surge when the power is restored.

- Maintain a list of essential equipment that may have an automatic “ON” switch and may come on by itself when power is restored, even if no one is around. Consider unplugging or turning off this equipment during the outage to avoid harmful effects when the power returns.
- Identify equipment that may need to be reset or restarted when the power is restored. (i.e., centrifuges, computers, fume hoods, etc.).
- Ensure that seals to freezers are intact. Most freezers will keep their temperature steady or below freezing for up to 10 hours if kept closed and properly sealed.
- Identify other freezers in your lab or neighboring labs that may have their own backup power or run on CO2 or liquid nitrogen which may be unaffected by a power outage, and discuss the possibility of sharing freezer space with them if necessary.
- Store or know where you can easily obtain dry ice and coolers in the event of a prolonged outage. This information can be included in the Essential Vendors Worksheet in the previous section.

LOSS OF OTHER UTILITIES

Power is not the only utility that may be affected by a disaster or equipment malfunction. Consider the impact of a prolonged failure of water systems, heating and cooling, or specialized ventilation systems. Some of these failures will have limited impact on a laboratory, while others may be catastrophic. The time of year will also be a factor. If the outage is expected to be short, it may be best to suspend operations until the problem is resolved. Longer outages have the potential to cause significant problems for many research laboratories.

Task: Describe how the loss of each of the following basic utilities would impact your operations. Include any contingency plans you have in place. Example: Municipal water: Lab stores 10 gallons of distilled water in case of emergencies.



| Utility | How would an outage affect your lab? | How would you continue operating during an outage? |
|----------------------------|--------------------------------------|--|
| Electricity | | |
| Water (<i>municipal</i>) | | |
| Heating | | |
| Air conditioning | | |
| Humidity controls | | |
| Ventilation systems | | |
| | | |
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Task: Use the worksheet below to document how your computer drives, files, and folders are backed up.

| Drives, Files, Folders Worksheet | | |
|---|--|--|
| Drives, Files, and Folders | Method of back up and frequency of back up | Who to contact to access backup copies |
| Shared files on department server <i>(public files that all staff can access)</i> | | |
| Restricted department files and documents <i>(only accessible to selected staff)</i> | | |
| Files and documents on individual staff computers | | |
| Department file server | | |
| Other files or documents | | |
| Other files or documents | | |

Task: Write a brief explanation of how your department’s electronic information is backed up. Identify where the bulk of your documents and files are stored and how they are backed up. Include department-specific servers and files as well as how individual workstations get backed up. Include key contact names and numbers to ensure that the information remains available to your department even if there is staff turnover.



OTHER VITAL DOCUMENTS

While most documents and files are sent and kept electronically, there are still occasional paper copies of research notes, letters, and other documents. Consider how difficult it would be to replace these items. What if you couldn't get back into your lab to retrieve your lab notes?

Continuity Considerations

- Ensure that research notes, notebooks, letters, documents, spreadsheets, etc. are backed up to a network drive every day.
- Keep duplicate copies of irreplaceable notes, notebooks, manuscripts, and other documents in a safe location away from your lab or usual worksite.
- Regularly scan and save these items onto a network drive or onto an encrypted USB storage device.
- Regularly back up all information stored on laptops and tablets.

PEER SUPPORT

During a disaster or other major disruption, consider the support that might be available from others in your field who are conducting similar research. Do you have a colleague or collaborator using the same samples, specimens, or equipment? Is there another university nearby with similar research facilities that you can turn to for support?

Continuity Considerations

- Create a list of peers, colleagues, or collaborators who might be able to assist you following a disaster or other disruption.

Task: Use the worksheet below to document your support network.

| Peer Support Network | | | |
|----------------------|----------------------|---------------------|--|
| Peer/Colleague | Department/Institute | Contact Information | Assistance they might be able to provide |
| | | | |
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EMERGENCY RELOCATION

A disaster, whether large or small, could force you to relocate your operations for an extended period of time. A laboratory fire, chemical spill, sprinkler malfunction, or even smoke from a fire in another lab, are just some of the incidents that might require you to relocate. Total recovery and restoration may take several days to several months. Where would you go if you couldn't use your current site? Do you have an available "hot site" you can move to immediately? Do you have a location in another building where you can transfer some or all of your work? Can you co-locate with a colleague in another lab? Planning now for the unthinkable will save you valuable time in the event it happens.

Continuity Considerations

- ❑ Consider developing a partnership with other departments on campus that conduct similar research or use similar equipment as you. Arrange to store duplicates of vital records, backup supplies, and other materials in their lab. Review the partnership annually.
- ❑ Create a list of other laboratories or universities with similar equipment or running similar research.
- ❑ Identify the minimum alternate site requirements needed to resume operations if you were forced to relocate.
- ❑ Identify a backup location, either within your lab, another lab within your building, or another lab in your department, that you could use in the event of an equipment malfunction. Back-up locations must be pre-identified and approved by the Office of Research Compliance and the Department of Environmental Health and Safety.

NON-UT DALLAS BACKUP SITES

If a UT Dallas property is not available, it might be possible to relocate your work or research to a non-UT Dallas facility. The DFW area is host to several other schools and universities which might have specialized space that could be utilized during a disaster. Consider reaching out to a peer to pre-identify possible off-campus space that might meet your needs.

In the event of a relocation, labs will work with the Department of Environmental Health and Safety, Office of Emergency Management to determine where the lab will be relocated to. The Office of Emergency Management will consult with the Office of Research Compliance to identify possible backup sites.



☑ Task: Write a brief description of the minimum space requirements of your work location. Include the total square footage, room configurations (number of benches, cubical, offices, etc.), storage, utilities, environmental controls, and other requirements. Documenting this now will help if you need to find an alternate site quickly after a disaster.

☑ Task: Complete the worksheet below for alternate sites that have been identified as possible locations to use in an emergency.

| Alternate Site Worksheet | |
|--|--|
| Alternate site location: | |
| Street address: | |
| Contact: | |
| Essential functions that could relocate to this site: | |
| Staff that could relocate here: | |
| Essential supplies and equipment already at site: | |
| Specialized supplies and equipment needed: | |
| Summary of any limitations or special considerations if this site were to be used: | |
| Other helpful information: | |

DEVELOPING RECOVERY STRATEGIES AND TASKS

When a disaster or major disruption happens, every moment counts. You have identified and prioritized your essential functions, have identified the required resources, and possible alternate locations. The next step is to outline the actions to take after a disaster to maintain or restore each function. This will involve developing recovery strategies and recovery tasks.

Recovery strategies are the backup plans that help you stay in business after a disaster or major disruption. They indicate what the department or unit needs to do to recover and return to normal operations. Example: If your essential function is to manage staff schedules, then the recovery strategy is “to continue managing staff schedules”.

Each recovery strategy is followed by recovery tasks. Tasks are specific actions or activities undertaken to accomplish the strategy. Recovery tasks serve as checklists that guide your recovery actions and are organized by required resources – People, Places, and Things. Recovery tasks can help answer the basic question “What if?”

- What if 50% of your staff was out sick with the flu for several weeks?
- What if your lab was destroyed by fire? Where would you go?
- What if your specialized equipment was damaged or destroyed?
- What if you lost access to the Internet?

When creating your recovery tasks be sure to include enough details to make them useful. If they are too vague they won't be helpful. Include important steps to take, required resources, and key contacts needed to complete the task. Don't make them overly complicated either. An effective recovery strategies and tasks should be easily understood by all members of your recovery team.

Task: Complete a Recovery Planning Worksheet for each function you have identified.



Recovery Planning Worksheet

Instructions: Complete one worksheet for each essential function for your department or unit.

Essential Function Recovery Strategy: Continue to Conduct Research

Requirements: (List of required "must have" items or systems)

Key Roles (List of roles or qualifications needed for this function. Facilities supervisors, financial analysis, RN, etc.)

Individualized Recovery Tasks

Instructions: Describe your backup plan for each of the items below. If none exists write None. Skip any Task that does not apply to this function (Example: the function does not require any specialized equipment or supplies)

Recovery Task #1: Operate with reduced staff

How would you continue this function if your usual workforce was reduced by 50% for an extended period of time?

Recovery Task #2: Loss of essential facilities

What would you do if you did not have access to the primary facilities needed for this function? List each facility and describe your back-up plan.

Recovery Task #3: Loss of essential IT services and applications

What would you do if you lost access to your essential IT services (e.g., email, internet) or applications (e.g., SciQuest)? List each service and application and describe your back-up plan.

Recovery Task #4: Loss of essential or specialized equipment

What would you do if your essential equipment failed? List the equipment and describe your back-up plan.



Recovery Task #5: Loss of essential or specialized supplies

What would you do if you ran out of specialized supplies? How long could you function before you would need to restock?
What is your back-up plan?

Recovery Task #6: Loss of essential upstream dependent departments or services

What would you do if you lost access to an upstream dependent department or service needed for this function? List each dependency and describe your back-up plan.

Recovery Task #7: Loss of utilities

What would happen if you lost basic utilities like electricity, water, HVAC? List each utility and describe your back-up plan.

Recovery Task #8: Other:

List any other essential item, service, vendor, or person, that this function relies on that is not captured above. Indicate how long could you operate without the item or person. Describe your plan for continuing operations without it / them.



Recovery Planning Worksheet

Instructions: Complete one worksheet for each essential function for your department or unit.

Essential Function Recovery Strategy: Manage Materials

Requirements: (List of required "must have" items or systems)

Key Roles (List of roles or qualifications needed for this function. Facilities supervisors, financial analysis, RN, etc.)

Individualized Recovery Tasks

Instructions: Describe your backup plan for each of the items below. If none exists write None. Skip any Task that does not apply to this function (Example: the function does not require any specialized equipment or supplies)

Recovery Task #1: Operate with reduced staff

How would you continue this function if your usual workforce was reduced by 50% for an extended period of time?

Recovery Task #2: Loss of essential facilities

What would you do if you did not have access to the primary facilities needed for this function? List each facility and describe your back-up plan.

Recovery Task #3: Loss of essential IT services and applications

What would you do if you lost access to your essential IT services (e.g., email, internet) or applications (e.g., Epic, SciQuest)? List each service and application and describe your back-up plan.

Recovery Task #4: Loss of essential or specialized equipment

What would you do if your essential equipment failed? List the equipment and describe your back-up plan.



Recovery Task #5: Loss of essential or specialized supplies

What would you do if you ran out of specialized supplies? How long could you function before you would need to restock?
What is your back-up plan?

Recovery Task #6: Loss of essential upstream dependent departments or services

What would you do if you lost access to an upstream dependent department or service needed for this function? List each dependency and describe your back-up plan.

Recovery Task #7: Loss of utilities

What would happen if you lost basic utilities like electricity, water, HVAC? List each utility and describe your back-up plan.

Recovery Task #8: Other:

List any other essential item, service, vendor, or person that this function relies on that is not captured above. Indicate how long could you operate without the item or person. Describe your plan for continuing operations without it / them.



Recovery Planning Worksheet

Instructions: Complete one worksheet for each essential function for your department or unit.

Essential Function Recovery Strategy: Continue Business Operations

Requirements: (List of required "must have" items or systems)

Key Roles (List of roles or qualifications needed for this function. Facilities supervisors, financial analysis, RN, etc.)

Individualized Recovery Tasks

Instructions: Describe your backup plan for each of the items below. If none exists write None. Skip any Task that does not apply to this function (Example: the function does not require any specialized equipment or supplies)

Recovery Task #1: Operate with reduced staff

How would you continue this function if your usual workforce was reduced by 50% for an extended period of time?

Recovery Task #2: Loss of essential facilities

What would you do if you did not have access to the primary facilities needed for this function? List each facility and describe your back-up plan.

Recovery Task #3: Loss of essential IT services and applications

What would you do if you lost access to your essential IT services (e.g., email, internet) or applications (e.g., Epic, SciQuest)? List each service and application and describe your back-up plan.

Recovery Task #4: Loss of essential or specialized equipment

What would you do if your essential equipment failed? List the equipment and describe your back-up plan.



Recovery Task #5: Loss of essential or specialized supplies

What would you do if you ran out of specialized supplies? How long could you function before you would need to restock?
What is your back-up plan?

Recovery Task #6: Loss of essential upstream dependent departments or services

What would you do if you lost access to an upstream dependent department or service needed for this function? List each dependency and describe your back-up plan.

Recovery Task #7: Loss of utilities

What would happen if you lost basic utilities like electricity, water, HVAC? List each utility and describe your back-up plan.

Recovery Task #8: Other:

List any other essential item, service, vendor, or person that this function relies on that is not captured above. Indicate how long could you operate without the item or person. Describe your plan for continuing operations without it / them.



Recovery Planning Worksheet

Instructions: Complete one worksheet for each essential function for your department or unit.

Essential Function Recovery Strategy:

Ensure the continuation of *(enter name of function)*:

Requirements: *(List of required "must have" items or systems)*

Key Roles *(List of roles or qualifications needed for this function. Facilities supervisors, financial analysis, RN, etc.)*

Individualized Recovery Tasks

Instructions: Describe your backup plan for each of the items below. If none exists write None. Skip any Task that does not apply to this function (Example: the function does not require any specialized equipment or supplies)

Recovery Task #1: Operate with reduced staff

How would you continue this function if your usual workforce was reduced by 50% for an extended period of time?

Recovery Task #2: Loss of essential facilities

What would you do if you did not have access to the primary facilities needed for this function? List each facility and describe your back-up plan.

Recovery Task #3: Loss of essential IT services and applications

What would you do if you lost access to your essential IT services *(e.g., email, internet)* or applications *(e.g., Epic, SciQuest)*? List each service and application and describe your back-up plan.

Recovery Task #4: Loss of essential or specialized equipment

What would you do if your essential equipment failed? List the equipment and describe your back-up plan.



Recovery Task #5: Loss of essential or specialized supplies

What would you do if you ran out of specialized supplies? How long could you function before you would need to restock?
What is your back-up plan?

Recovery Task #6: Loss of essential upstream dependent departments or services

What would you do if you lost access to an upstream dependent department or service needed for this function? List each dependency and describe your back-up plan.

Recovery Task #7: Loss of utilities

What would happen if you lost basic utilities like electricity, water, HVAC? List each utility and describe your back-up plan.

Recovery Task #8: Other:

List any other essential item, service, vendor, or person that this function relies on that is not captured above. Indicate how long could you operate without the item or person. Describe your plan for continuing operations without it / them.

EMERGENCY COMMUNICATIONS AND NOTIFICATION

Effective communication, both internally and externally, is crucial during any emergency, but also a frequent point of failure. Poor communication is often a top criticism after an incident. Effective emergency communications is more than just sending timely messages. Consider the following when developing your emergency communications plan:

- Who do you need to communicate with? Employees, students, visitors, vendors, department leadership?
- Who is responsible for communicating to each group?
- How will you communicate? E-mail? Phone? Text?
- What do you need to say? What do they need to know?
- How often will you communicate?

Continuity Considerations

- Make a list of your department's most important customers and all students/staff/faculty. Plan to communicate regularly with them before, during, and after an incident. Share your communications plan with them.
- Share your contacts list with key members of your staff in case you need their help with notifications.
- Create an emergency notification "call tree" to use during a disaster. *See below for instructions.*
- Prioritize who needs to be called and when they are called. Should you call your department chair before you notify students?
- Review and update all contact lists on a regular basis.
- Test your communications plan at least once per year.

LABORATORY "CALL TREE"

A laboratory call tree is a quick and convenient way to notify your key contacts. To set up a call tree, identify who needs to be called and who will call them. Determine who has the authority to activate the call tree. The laboratory call tree would be different from the university notification system, UTDAAlert. Your call tree will allow you to contact the individuals within your laboratory and department and communicate recovery information, while UTDAAlert is a mass notification that alerts all university staff, faculty, and students of emergencies.



Example call tree format:

| Department Director <i>Activates the call tree</i> | | |
|--|--|---|
| Who Will Notify Students* | Who Will Notify Staff & Faculty* | Who Will Notify Vendors* |
| Student, phone # Student, phone # Student, phone # ⬇ ⬇ <i>Call everyone on list</i> <i>Report back to Director</i> | Staff, phone # Staff, phone # Faculty, phone # ⬇ ⬇ <i>Call everyone on list</i> <i>Report back to Director</i> | Vendor, phone # Vendor, phone # Vendor, phone # ⬇ ⬇ <i>Call everyone on list</i> <i>Report back to Director</i> |
| Department Director | | |

*Have a designated alternate for each call group in case the primary person is not available.

Emergency Notification by E-Mail

A call tree can also be done by e-mail. Create a group list of everyone to be contacted. Send out a test message at least once a year to ensure everyone is on the list. When sending out an emergency message, ask for a reply (either Reply All or just Reply to you) so you know who has received the message. *Note: Power or IT outage may impact sending and receiving e-mail.*

Emergency Notifications by Text Messages

A call tree can also be done by text message. Text messaging utilizes cellular phone service, but can be more reliable during a disaster or other emergency. Even when cellular service is too weak or overloaded for voice calls, text messaging will often go through.

Task: Create a Laboratory Call Tree

EMPLOYEE PREPAREDNESS

The most valuable resources at UT Dallas are human resources. Following a disaster or other emergency, all of your preparedness and planning will go to waste if you don't have qualified people available to help execute the plan. Employee preparedness is an important part of your overall emergency preparedness planning and will help increase the likelihood that your employees will be safe and available after a disaster.

Employee Preparedness Considerations

- Ensure that your personnel are familiar with all aspects of your emergency and continuity plans.
- Encourage them to have a personal preparedness plan at home. This should include an emergency communications plan as well.
- Encourage them to have a home and work disaster plan and disaster supplies kits.
- Encourage them to keep their emergency contact information updated in Galaxy.

Additional Emergency Preparedness Considerations

Home and family: Prepare your home and those who depend on you by creating an emergency plan that includes your emergency communications plan, information about what to do if you must evacuate, and how to shelter-in-place. Assemble a disaster supplies kit that includes essential items that you and your family would need if you had to evacuate or if you had to shelter-in-place for several days. Remember to consider the special needs of elderly family members, infants and children, and pets. Assemble a kit for your car as well. Additional information about emergency preparedness can be found at <http://www.utdallas.edu/ehs/programs/emergency/> and www.ready.gov.

At work: Talk to your supervisor about what your responsibilities will be during a campus emergency. This includes clarifying expectations and reviewing emergency plans and notification procedures. Employees who perform critical functions (support life, health, safety, security) may be required to stay at or report to work during a disaster. Assemble a workplace preparedness kit. Include change of clothes and shoes, medications, personal hygiene items, mobile device charger, snacks, and water. Additional information about emergency preparedness can be found at <http://www.utdallas.edu/ehs/programs/emergency/> and www.ready.gov.

COMPLETE CONTINUITY TRAINING

Completing training can help you better understand the continuity planning process and how to develop a functional and beneficial continuity plan. Training workshops are offered by the Department of Environmental Health and Safety, Office of Emergency Management. To sign up for these workshops, please use the Environmental Health and Safety training tool at <https://www.utdallas.edu/ehs/tools/training/>. Online resources providing an introduction to continuity planning can be found on the Continuity Planning webpage at <http://www.utdallas.edu/safety/programs/continuity/>.

TESTING/EXERCISING YOUR PLAN

Once your continuity plan is finished, you will want to test it to be sure you and the rest of your department or unit are familiar with it. One way to test your plan is to conduct a tabletop exercise or drill. Include all of your planning team, as well as others in your unit who would be involved during and after a disaster or major disruption. Develop a plausible scenario that might impact your department (e.g., fire, sprinkler malfunction) and discuss the actions you would take to maintain your operations. Compare your discussions with your plan and make any adjustments as needed. Additional information about conducting a tabletop exercise can be found at <http://www.utdallas.edu/ehs/programs/emergency/>.

SUMMARY/NEXT STEPS

Continuity planning does not begin after disaster strikes. Planning begins right now, with you and your co-workers completing this guide. The information you have collected and the conversations you have with your staff will help prepare you to respond quickly and efficiently to any emergency and to establish a recovery plan that will minimize interruption to your vital work.

Having a continuity plan will not prevent a power outage, tornado, or a burst sprinkler pipe, but it could potentially save you thousands, possibly millions, of dollars in losses and years of research.

Now that you have completed the guide, here are a few final steps:

- Review the Mitigation/Follow-Up Actions Worksheet and establish a plan to complete the outstanding actions.
- Upload your plan into the University of Texas at Dallas continuity planning tool. Contact the Department of Environmental Health and Safety, Office of Emergency Management at emergencymanagement@utdallas.edu for information and training.
- Make an electronic copy of the complete guide and share it with the members of your planning team.
- Keep copies, either hard copy or electronic, at a separate location from your primary worksite.
- For a large department, create an executive summary and distribute it to everyone during a staff meeting.
- Test your plan with your entire department by conducting a tabletop exercise.
- Plan to review your plan in one year. Schedule the meeting now so you don't forget.

MITIGATION/FOLLOW-UP ACTIONS

Task: Use the worksheet below to capture suggestions and ideas that have been identified during the planning process that need to be addressed.

