Signatures on File

In conjunction with the McLean County Emergency Management Agency, Illinois State University has completed this Hazard Identification and Risk Assessment (HIRA) an ongoing process where the University identifies the natural, human-caused, and technological hazards that potentially impact school staff, faculty, students, facilities and grounds, along with infrastructure. The document is used to assess the risk and vulnerability to people, property, the environment, and operations. This document will be revised as needed with a minimum review cycle established on an annual basis.

The following individuals have reviewed and affirm this document to support emergency planning functions for the University.

Eric Hodges, Director, Emergency Management — 4/26/2019 Date

Bob Clark, McLean County EMA — 4/26/2019 Date

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Hazard Identification and Risk Assessment — 2019

Executive Summary

In publishing Illinois State University's HIRA, to the extent possible whole community input and collaboration was utilized to identify natural, human-caused, and technological hazards that potentially impact school staff, faculty, students, facilities and grounds, and infrastructure. Analysis considers the impact of identified hazards and assesses the risk and vulnerability to people, property, the environment, and operations.

The HIRA lists the most-likely hazards to impact the University community. Emergency plans and procedures developed from the HIRA are built on an "all-hazards, all-event" approach to address all reasonable contingencies. The HIRA focuses on unique aspects of each hazard to better address more specific emergency planning efforts.

Each of the natural, human-caused, and technological hazards are analyzed with a series of common questions to describe the expected effects of the hazard on the University and what mitigation/prevention strategies and considerations can be made.

The following is a list of the hazards most likely to threaten the University. It was compiled through historical research, like and/or comparable events at similar institutions and through direct collaboration of McLean County, the Town of Normal and community stakeholders representing governmental, non-governmental, volunteer and private organizations. This listing is not ranked according to probability of occurrence or severity of impact.

Natural Hazards	
Biological	*Infectious Disease (plague, smallpox, anthrax, virus, SARS, pandemic)*
Geological	*Earthquake*
Meteorological	*Severe Weather (Wind, Lightning, Hail, Tornado)*
	Winter Weather (Freezing Rain/Sleet/Ice, Blizzard, Extreme Cold)
	Floods
	Drought/ Extreme Heat
	Geomagnetic Storm

Human-Caused Hazards	
Accidental	*Lost Person*
	Building Collapse/Structural Failure
	Transportation Accident (vehicle, rail, air)
	Study Abroad incident
Intentional	*Credible Bomb Threat*
	Active Shooter
	Hostage Situation
	Terrorism

	Civil Disturbance, Public Unrest
	Study Abroad Incident

Technological Hazards	
Accidental or Intentional	*IT Failure*
	Power/Water Failure
	Radiological/Nuclear Incident
	Hazardous Materials
	Cyber attack

Response capabilities of Illinois State University are sufficient to mitigate, respond to and recover from many types of events and emergencies. Any shortfalls in response capabilities are decreased and/or alleviated by interagency coordination and memorandums of understanding (MOUs) which exist between first responder agencies within the Town of Normal and McLean County. MOUs that affect the emergency response are detailed maintained in a separate file in the Administrative Offices of the University Police Department.

Situations

1. Environment

    a. Geography: Illinois State University is a large, single-campus Midwestern University centrally located in the middle of Illinois, at the intersection of three Interstates, commuter and freight rail and a regional airport. The topography is generally flat.

    b. Climate: The climate of McLean County is generally temperate. All four seasons are experienced, with temperatures averaging 36.5° F in the winter and 84.2° F in the summer. Seasonal temperature extremes of 113° F in the winter and -34° F in the summer have been recorded. McLean County has documented tornado touchdowns totaling 103 since records have been kept. McLean County is subject to rainfall averaging 39.60 inches per year, but, has experienced droughts; the most severe being in 2005. Winter storms occur, including ice storms, heavy snows, whiteouts, periods of extreme cold, and blizzards, causing hazardous road conditions. McLean County receives an average of 20.5 inches of snowfall each year.

2. Population: The population of Illinois State University is approximately 23,000 employees and students (2013 Census). McLean County's population is approximately 172,000 (2012 figures), with the county seat in Bloomington. The major population center for McLean County is the Bloomington/Normal metro are. The main portion of the population is mostly centered in Bloomington/Normal, with less than 25 % of the population in the remainder of the county.

3. Regional: McLean County is geographically situated in Central Illinois with Peoria to the west, Rockford to the north, Champaign/Urbana to the east, and Decatur to the south.

4. Critical Infrastructure/Transportation: The Town of Normal owns and maintains the streets in and around the University campus. The University does maintain sidewalks and parking lots that are owned by the University. The major transportation routes near the University are:

    a. Interstates: 39, 55, 74
    b. Illinois State Routes 9, 24, 136
    c. US Route 66

5. Transportation Activities:

    Given McLean County's convenient location between St. Louis and Chicago, it serves as a natural transportation gateway for the region. While the University is not responsible for any of the transportation infrastructure in the area, it does benefit by having multiple modes and routes in and out of the University community.

6. Airports: Central Illinois Regional Airport located in Bloomington

7. Rail/Public Transportation:

    a. Rail: Amtrak has a station in Uptown Normal, adjacent to the University's southeast border. This station serves a large student population.

    b. Mass Transit: The Connect Transit System operates out of the same multi-modal transportation center as does Amtrak. Several mass transit buses are under contract by the University to transport students and employees among campus facilities and select community destinations

8. Public Water Supplies:

    The University obtains its fresh water supply from the Town of Normal Water Department.

9. Government Facilities:

    While the University is technically an entity of Illinois state government, it does not operate state government services or centers on campus.

10. Recreational Facilities:

    The University has a number of recreational facilities that support (1) student athletes and (2) students who wish to recreate. Athletics facilities are generally located on the northwest quadrant of campus and consist of a football stadium, an arena, a Fieldhouse and various open fields and stadiums. The core of campus is home to a student recreational complex that supports student and employee activities.

11. Other Facilities:

The University conducts research and has laboratories throughout campus. The primary science laboratories are located in Felmley Hall and the Science Laboratory Building.

12. Military Facilities: The University hosts a Reserve Officers Training Corp program on campus. ROTC's facility is located on campus.

13. Hazardous Material Facilities:

    The University has hazardous materials located in several buildings, primarily to support academia and research activities. The Environmental Health & Safety department actively oversees these facilities for safety and compliance.

Assumptions

1. Illinois State University officials recognize their responsibilities and duties with regard to maintaining the health, safety and welfare of the faculty, staff, students and visitors of the University. Officials will assume their respective duties in implementing any section or part of the Emergency Management Plan.

2. Outdoor warning sirens are capable of alerting nearly 100% of the staff, faculty, and students who are located outdoors. The ISU Emergency Alert notification system will be used to notify the University populace in a timely manner if an event and/or emergency.

3. The HIRA and corresponding emergency plans rely on the concept that the response to an event and/or emergency will always be at the lowest possible level. Any department and resource within the University may be utilized. If these resources were inadequate in addressing the needs of the University, additional assistance would have to be requested from nearby jurisdictions and/or the McLean County Emergency Management Agency and/or the state of Illinois to return the University to pre-emergency/disaster conditions.

4. Illinois State University is exposed to many different hazards, all of which have the potential to threaten the health, safety, and welfare of the population. These hazards may be classified as natural, man-made or technological. They have the potential to cause property damage, injuries, deaths and/or major disruption to University students, employees and/or guests. Evacuation and/or sheltering of/from affected areas may be required.

5. In all but the most unusual, severe, or widespread emergency and/or disaster situations, the County of McLean, the Town of Normal, and Illinois State University have adequate resources and expertise available for response and recovery operations.

		Tornado/Severe Weather	Earthquake	Floods	Winter Storms/Extreme Cold	Drought/Extreme Heat	Infectious Disease	Geomagnetic Storm	Study Abroad Incident (Accidental)
1	What impacts (effects) can be expected from the hazard?	Damage to facilities which may result in a suspension of critical academic and administrative services	Minor shaking of University facilities can be expected. Some minor contents damage may occur.	Inaccessible roadways & walkways; flooded lower levels of University facilities	Campus closure, frozen/burst water pipes	Water rationing, limited/canceled outdoor activities	Significant reduction in employee and student head counts for the duration of the incident	Interruption or loss of communications and/or power systems	Prolonged loss of contact with University constituents; ilness, injury and/or death of University constituents
2	What is the likelihood of injury or death to members of the campus community?	High - Approximately 20,000 students and 3,500 employees are regular members of the campus community. A tornado touchdown can have a high probability of injuries and/or death. The University also maintains 100 occupied facilities/structures.	Low - The Bloomington/Normal community sits just outside the Wabash Valley seismic zone and sits well north of the New Madrid Seismic zone.	Low - University property is not located within a flood plane	Low - so long as power and heat remain	Low - so long as occupied spaces remain air conditioned and sufficient drinking water is available	Moderate to High	Negligible	Potentially high to those constituents who are in the hazard area
3	What health and safety issues may affect personnel responding to the hazard?	Debris and structural damage associated with tornadoes and severe storms may present immediate life safety hazards to response personnel. Probable secondary hazards include electrocution, punctures, biological, fire, hazmat spills, gas main/line breaks, falling debris, flash flooding, temperature inversions, collapsed structures, power outages, civil disobedience, etc.	Potential, but low-probability, hazards include electrocution, punctures, biological, fire, hazmat spills, gas main/line breaks, falling debris, collapsed structures, power outages	Potential impacts include electrocution, hazardous materials and debris in the water	Limited times outdoors responding to incidents, need for increased numbers of responders due to frequent outdoor rotations	Limited time outdoors responding to incidents, need for increased numbers of responders due to frequent outdoor rotations	Responders who will be in close contact with infected (or suspected infected) persons will need to be trained in contact protocols and will need appropriate personal protective equipment readily available	Prolonged power outages, depending on the time of year, may impact living areas. Prolonged power outages may also impact the ability to deliver academic and administrative services	None for those University personnel responding from campus
4	What affect will the hazard have on the institution's ability to continue operations?	Substantial loss of services may occur. The loss of administrative facilities and structures may prevent the immediate resumption of life essential and life safety services. The educational and research mission of the University could be severly affected. Loss of revenue may occur.	Substantial losses and interruptions are unlikely with an earthquake originating along the Wabash Valley or New Madrid seismic zones.	Flooding may disrupt entry into lower levels of buildings, or entire facilities of utilities are also disrupted. Widespread facilities or roadway flooding may impact the ability for the University to conduct teaching, learing, research and administrative functions	Prolonged cold may increase the number of pipe bursts, which can result in disrupted operations. Prolonged power/heat outages can also impact the ability to conduct academic and administrative operatoins	Outdoor activities may be curtailed or canceled. Indoor activities should remain unimpacted	A widespread infectous disease outbreak could have significant impacts, up to and including curtailing of activities and closure of the University	Prolonged communications and/or power disruptions can severely impact Emergency Responders, and academic and administrative service delivery	None on-campus; potential reschedule or cancelation of impacted overseas activities
5	What affect will the hazard have on property, facilities, and infrastructure?	The probability for collapsed, damaged, and/or destroyed (total loss) of facilities may occur.	Minimal impact on University property, facilities and infrastructure is anticipated.	The probability for damaged facilities may occur.	Infrastructure (water) is the most likely impact, due to burst pipes	Power disruptions could have a rapid impact on occupied spaces	Negligible	Prolonged power outages may adversely impact other infrastructure systems that are not powered by emergency generators	None
6	What affect will the hazard have on the delivery of services to the University community?	The loss of ability to continue providing teaching, learning, research and administrative services to the University community will severly affect the economic condition of the University. Delivery of servcies to students, faculty, staff and families is parammount. Loss of services to these constituents may cause undue stress and additional unspecified outcomes including but not limited to mental/behavioral health, financial assistance, medical assistance, and reunification.	Service delivery should continue with limited disruption. Should a facility sustain physical damage, that damage should not deter building occupancy.	Limited delays and/or interruptions in services may occur.	The loss of facilities (due to water, heat, and/or power) will disrupt academic and administrative service delivery.	Some athletics events may have to be rescheduled or canceled. Some outdoor concerts, camps, festivals or other activities may also have to be rescheduled or canceled.	A widespread infectous disease outbreak could have significant impacts, including reduced/delayed services due to insufficient staffing, high numbers of students who may not complete entire academic semesters; and overwhelmed medical staff who cannot adequately see to the needs of all patients	Prolonged communications and/or power disruptions can severely impact Emergency Responders, and academic and administrative service delivery	None on-campus; potential reschedule or cancelation of impacted overseas activities
7	What affect will the hazard have on the environment from primary and secondary (cascading events)?	The loss of containment structures and debris created from the effect of the tornadoes/sever storms may result in limited scope releases of hazardous materials. The overall affect to the environment from this perspective is negligable.	The loss of containment structures and debris created from the effect of the earthquake may result in limited scope releases of hazardous materials. The overall affect to the environment from this perspective is negligable.	Limited effects are associated with the flood event.	None anticipated	Long-term droughts may impact the environment that is relied upon for University Farm operations	For airborne diseases, the airspace is of great concern. For contct diseases, surface cleanliness is of great concern.	None anticipated	None

8	What is the likelihood that the hazard will harm the economic and financial condition of the University?	Dependent on the scope, magnitude, location and duration of the event, economic conditions and financial stability may be severly affected.	Significant financial impact is not expected.	Significant economic or financial impact is unlikely with flooding. Some cleanup and maintenance costs are expected.	Minimial impact	Programs that rely on revenue from outdoor activities may be impacted	High. For prolonged incidents where large groups of students cannot complete academic semesters, the institution will have to consider the tuition and fees implications. For impacted employees who run out of sick time, the University will have to consider employment implications.	Prolonged communications and/or power disruptions may impact service delivery, which in turn could have a negative financial impact	Minimal impacts, but may include extraordinary expenses to coordinate aid for impacted overseas constituents
9	What affect will the hazard have on the University's regulatory and contractual obligations?	Obligations for athletic/academic and special events, housing, course delivery, food services, medical services, public safety, grant deliverables, financial (employees, contractors, vendors, etc.) may be severly affected based on the scope, magnitude, location and duration of the event.	The University should not fact significant regulatory or constructural impacts due to this event. However, the University may be called upon to provide significant support to affected populations (namely sheltering/housing services) that may conflict with existing contractural obligations.	Not applicable	Not applicable	Contracted outdoor activities may have to be rescheduled or canceled	The University may have to reschedule or cancel contractually-bound events. The University may not have sufficient healthy staff to meet all of its regularly obligations in a timely manner	Prolonged communications and/or power disruptions may limit the ability for some regulatory obligations to occur	Not applicable
10	What effect will the hazard have on the University's credibility or public confidence in the program?	Lack of, or inappropriate, responses and/or lack of routine communications with the campus community may negatively impatct confidence and/or erode the University's credibility	Lack of, or inappropriate, responses and/or lack of routine communications with the campus community may negatively impatct confidence and/or erode the University's credibility	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Potentially high depending on how the University responds and communicates with stakeholders
	What mitigation strategies and considerations can be made for the hazard?								
1	Will the use of appropriate building construction materials lessen the impact of the hazard?	The majority of the facilities used by the University are constructed of steel and brick. All construction complies with the International Building Codes	The majority of the facilities used by the University are constructed of steel and brick. All construction complies with the International Building Code	All construction complies with the International Building Code.	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
2	Will the use of appropriate building and construction standards lessen the impact of the hazard?	The majority of the facilities used by the University are constructed of steel and brick.	The majority of the facilities used by the University are constructed of steel and brick.	The University does not place occupied or critical infrastructure facilities within flood planes	The University should ensure that all water pipes within buildings are not exposed to outside air	Not applicable	Not applicable	Not applicable	Not applicable
3	Can hazard avoidance through appropriate land-use practices lessen the impact of the hazard?	Not applicable	Not applicable	The University does not place occupied or critical infrastructure facilities within flood planes	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
4	Will/can relocation, retrofitting, or removal of structures at risk lessen the impact of the hazard?	The University cannot move or relocate facilities/structures to lessen hazard impact.	The University cannot move or relocate facilities/structures to lessen hazard impact.	In some isolated cases, yes.	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
5	Can the hazard be removed or eliminated?	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
6	Can the hazard be reduced or limited in amount or size?	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Aggressive education/prevention/containment efforts may help limit the spread of the hazard	The hazard can be reduced by having power and communications systems available that are not impacted by geomagnetic storms	Thoroughly-researched briefings for overseas travelers; robust communications capabilities for travelers; rapid and appropriate interventions by University personnel in the immediate aftermath of an incident

7	Can the hazard be segregated from people, services, or facilities to be protected?	Not applicable	Not applicable	Yes. The University does not place occupied or critical infrastructure facilities within flood planes	Yes. Populations can remain indoors during the event and thus not be exposed to the hazard	Yes. Populations can remain indoors during the event and thus not be exposed to the hazard	Infected persons can be segmented from uninfected persons until contagious period passes	Not applicable	If appropriate warning is received, the University can help arrange for the relocation/evacuation of impacted constituents
8	Can the basic characteristics of the hazard be modified?	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
9	Can the rate of release be controlled for the hazard?	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Aggressive education/prevention/containment efforts may help limit the spread of the hazard	Not applicable	Not applicable
10	Can installation of protective systems and equipment lessen the impact of the hazard?	The University has installed and maintains serveral systems for notification and warning of students, employees and guests. Those various systems are branded ISU Emergency Alert	The University has installed and maintains serveral systems for notification and warning of students, employees and guests. Those various systems are branded ISU Emergency Alert	Where appropriate, sump pumps are installed and maintained.	Yes. Heating systems for occupants and infrastructure are in place	Yes. Cooling systems for occupants are in place. Plans for responding to water shortage emergencies are documented	Yes. Readily accessibly hand-washing and sanitizing stations can help eliminiate certain hazards	Yes. There are systems (typically Faraday cages) that can protect against this hazard	Not applicable
11	Can the establishment of hazard warning and communication procedures lessen the impact of the hazard?	Procedures are in place for warning and communication systems via ISU Emergency Alert	Procedures are in place for warning and communication systems via ISU Emergency Alert	Procedures are in place for warning and communication systems via ISU Emergency Alert	Procedures are in place to notify the University community of adverse weather conditions, class cancellations and University closure	Procedures are in place to notify the University community of adverse weather conditions	Yes. Readily accessibly hand-washing and sanitizing stations can help eliminiate certain hazards	If warning is available, we will utilize existing warning and notification systems to provide the campus community with notification and applicable instructions	If appropriate warning is received, the University can help arrange for the relocation/evacuation of impacted constituents
12	Can the redundancy of critical systems (equipment, information, operations, materials) be used for mitigation?	The University has a number of redundancies in place for critical systems, key among them include our warning/notification system (ISU Emergency Alert), power for key systems, and information technologies	The University has a number of redundancies in place for critical systems, key among them include our warning/notification system (ISU Emergency Alert), power for key systems, and information technologies	The University has a number of redundancies in place for critical systems, key among them include our warning/notification system (ISU Emergency Alert), power for key systems, and information technologies	Yes. In the event of a power/heat outage, supplemental sources can be brought to key faciliites to lessen the impacts	Yes. In the event of a power outage, supplemental power can be brought into key facilities to lessen the impact	Not applicable	For key infrastructure systems that will likely be impacted by this hazard, the University can either have replacement parts on-hand or have contracts in place for rapid repairs/replacements	If travelers have reliable, redundant communications capabilities while traveling abroad, communications with University personnel can assist in prevention and mitigation efforts

		Civil Distrubance	Lost Person	Building Collapse/Structural Failure/Major Fire	Transportation Accident (Vehicle, Rail, Air)	Credible Bomb Threat	Active Shooter	Hostage Situation	Terrorism	Study Abroad Incident (Intentional)
1	What impacts (effects) can be expected from the hazard?	Disruption of academic and/or administrative activities.	Illness, injury and/or death if the lost person is in imminent danger	Traumatic injuries, loss of life, loss of facilities, potential hazardous materials releases	Traumatic injuries, loss of life, loss of facilities, potential hazardous material releases	Disruption of academic and/or administrative activities; potential panic	Traumatic injuries, loss of life, panic	Potential injury or loss of life	Multiple casualties; significant campus disruption; potential significant facility damage	Similar to hostage incidents for kidnappings or acts of terrorism for intentional acts
2	What is the likelihood of injury or death to members of the campus community?	Very Low	Low	High if the incident occurs with no warning and some occupants are unable to leave the facility	High - both to passengers and to University constituents in the impacted area	Low - bomb threats with pre-notice rarely results in a detonation	High - active shooters generally look to maximize casualties	Low	High - both to persons and facilities	Moderate potential
3	What health and safety issues may affect personnel responding to the hazard?	Safety and personal protective equipment is issued to officers.	Negligible	There could be signficant hazards facing responders, including gas leaks, debris, hazardous materials, unstable structures, excessive heat, etc.	There could be signficant hazards facing responders, including gas leaks, debris, hazardous materials, unstable structures, excessive heat, etc.	Uncertainty of credibility of report; uncertainty of what to look for; potential of a detonation	Secondary shooter awaiting responders; pre-planted device(s)	Potential for hostage taker to fire on responders	Depending on the method of the act, biological, chemical, radiological, nuclear or secondary explosive devices may confront responders	Not applicable
4	What affect will the hazard have on the institution's ability to continue operations?	Negligible effect based on the use of alternate facilities.	Negligible	Depending on the facility, the impact can be significant.	Depending on the facility, the impact can be significant.	Dependening on location(s), impact can be significant	During the incident, most campus operations will be suspended	Depending on location(s), impact may be significant	University operations may be severely impacted for an extended period of time	Negligible
5	What affect will the hazard have on property, facilities, and infrastructure?	Negligible effect based on the use of alternate facilities.	Negligible	Depending on the facility, the impact can be significant.	Depending on the facility, the impact can be significant.	Dependening on location(s), impact can be significant	The facility where the incident took place may be off-line for an extended period of time	Negligible	Impacted facilities may experience significant damage	Negligible
6	What affect will the hazard have on the delivery of services to the University community?	Negligible effect based on the use of alternate facilities.	Negligible	Depending on the facility, the impact can be significant.	Depending on the facility, the impact can be significant.	Dependening on location(s), impact can be significant	Routine University services may be suspended for multiple days	Depending on location(s), impact may be significant	University operations may be severely impacted for an extended period of time	Negligible
7	What affect will the hazard have on the environment from primary and secondary (cascading events)?	Negligible	Negligible	Runoff from the incident could impact soils and/or waterways. Aerial releases can impact air quality	Runoff/fuels from the incident could impact soils and/or waterways. Aerial releases can impact air quality	If detonation occurs, runoff from impact site(s) could impact soils and/or watereways	Negligible	Negligible	Depending on the method of the act and materials used, there may be environmental implications	Negligible
8	What is the likelihood that the hazard will harm the economic and financial condition of the University?	Negligible	Negligible	Depending on the facility, the impact can be significant.	Depending on the facility, the impact can be significant.	Depending on the facility, the impact can be significant	Short-term financial impacts are possible	Negligible	The financial impact may be significant to the University	Negligible
9	What affect will the hazard have on the University's regulatory and contractual obligations?	Negligible	Negligible	Depending on the facility, contractually-obligated events may have to be rescheduled or canceled. Depending on the facility, the University may be unable to meet some of its regulatory requirements in a timely manner	Depending on the facility, contractually-obligated events may have to be rescheduled or canceled. Depending on the facility, the University may be unable to meet some of its regulatory requirements in a timely manner	Depending on the facility, contractually-obligated events may have to be rescheduled or canceled. Depending on the facility, the University may be unable to meet some of its regulatory requirements in a timely manner	Depending on the facility, contractually-obligated events may have to be rescheduled or canceled. Depending on the facility, the University may be unable to meet some of its regulatory requirements in a timely manner	Negligible	There may be significant cancelations of contractually obligated events and the incident may prevent/delay University pesonnel from meeting regulatory requirements	Negligible
10	What effect will the hazard have on the University's credibility or public confidence in the program?	Negligible	Potentially high, depending on how the University responds and communicates with stakeholders	Could be significant, depending on the root cause, the University's response and the manner in which the University communicates with its constituents	Negligible	Potentially high, depending on how the University responds and communicates with stakeholders	Potentially high, depending on how the University responds and communicates with stakeholders	Likely low	Potentially high, depending on how the University responds and communicates with stakeholders	Potentially high, depending on how the University responds and communicates with stakeholders
	What mitigation strategies and considerations can be made for the hazard?									
1	Will the use of appropriate building construction materials lessen the impact of the hazard?	Not applicable	Not applicable	Yes. All University facilities are constructed in accordance with International Building Codes	Yes. All University facilities are constructed in accordance with International Building Codes	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
2	Will the use of appropriate building and construction standards lessen the impact of the hazard?	Not applicable	Not applicable	Yes. All University facilities are constructed in accordance with International Building Codes	Yes. All University facilities are constructed in accordance with International Building Codes	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

3	Can hazard avoidance through appropriate land-use practices lessen the impact of the hazard?	Not applicable	Not applicable	Not applicable	Potentially. The University can choose to not construct occupied facilities near active railraod tracks	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
4	Will/can relocation, retrofitting, or removal of structures at risk lessen the impact of the hazard?	Not applicable	Not applicable	Yes. Facilities that are inspected and determined to be unsafe can be repaired, retrofitted or ultimately removed from service	Potentially. The University can choose to not construct occupied facilities near active railraod tracks	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
5	Can the hazard be removed or eliminated?	Potentially. UIPD can remove certain groups that cause civil disturbances within the confines of our use of force SOP's.	No	No	No	No	No	No	No	Not applicable
6	Can the hazard be reduced or limited in amount or size?	Yes. Groups of people can be limited with planning and proper operational deployment.	Early notification that a person is missing; early application of available resources to search the immediate area and commence with investigations; early appropriate activation of a trained Search and Rescue team	For fires, detection and suppression systems can limit the occupant and facility impacts.	For fires, detection and suppression systems can limit the occupant and facility impacts.	If the threat is deemed credible, evacuating and/or sheltering nearby persons can help limit exposure	Physical protective barriers between the shooter and building occupants can limit exposure	No	No	Potentially, if some members of an overseas group are not in the impacted area
7	Can the hazard be segregated from people, services, or facilities to be protected?	Yes. Groups of people can be limited with planning and proper operational deployment. ISUPD works with interagency partners to establish perimeters to properly segregate the disturbance from other people, services or facilities.	Not applicable	Caustic, corrosive, explosive and other such materials can be stored in areas that are specifically protected for those hazards. Additionally, procedures can be enacted to limit human exposure to these materials	Not applicable	If the threat is deemed credible, evacuating and/or sheltering nearby persons can help limit exposure	Electronic access on exterior doors can assist in denying/delaying entry into facilities	Yes. Law enforcement will direct uninvolved persons away from the threat	No	Not applicable
8	Can the basic characteristics of the hazard be modified?	In a closed setting with a manageable number of people, the characteristics can be modified to a certain degree.	Not applicable	No	No	Not applicable	No	No	No	Not applicable
9	Can the rate of release be controlled for the hazard?	Not applicable	Not applicable	Yes. Suppression systems and building materials can significant limit the spread of a fire. Building materials may also limit the extent of structural collapses	No	Not applicable	Physical protective barriers between the shooter and building occupants can delay the threat	No	No	Not applicable
10	Can installation of protective systems and equipment lessen the impact of the hazard?	Security cameras on campus that can be used for observation during the event.	Not applicable	Yes. Suppression systems and building materials can significant limit the spread of a fire. Building materials may also limit the extent of structural collapses	Yes. Suppression systems and building materials can significant limit the spread of a fire. Building materials may also limit the extent of structural collapses	Not applicable	Electronic access on exterior doors can assist in denying/delaying entry into facilities. Mechanisms to secure interior doors can also assist in denying/delaying entry into individual spaces	Not applicable	No	Not applicable

11	Can the establishment of hazard warning and communication procedures lessen the impact of the hazard?	If the disturbance demonstrates an imminent threat to life, safety or health, an ISU Emergency Alert can be issued	Yes, for instances where a lost person is believed to be in danger, campuswide communications can amplify information and assistance in locating the person	Yes. ISU Emergency Alert can be utilized to provide warning and instructions to impacted persons	Yes. ISU Emergency Alert can be utilized to provide warning and instructions to impacted persons	Yes. ISU Emergency Alert can be utilized to provide warning and instructions to impacted persons	Yes. ISU Emergency Alert can be utilized to provide warning and instructions to the University community	Yes. ISU Emergency Alert can be utilized to provide warning and instructions to impacted persons	Somewhat. Acts of terrorism are generally no-warning incidents so ISU Emergency Alert can be utilized to share post-impact updates and instructions	No since these will be no-warning incidents
12	Can the redundancy of critical systems (equipment, information, operations, materials) be used for mitigation?	Not applicable	Not applicable	Yes. For facilities that house critical systems, stewards of those systems can implement redundancies and backups	Yes. For facilities that house critical systems, stewards of those systems can implement redundancies and backups	Not applicable	Not applicable	Not applicable	Yes. For facilities that house critical systems, stewards of those systems can implement redundancies and backups	Not applicable

		Prolonged Power Outage	Prolonged Water Outage	Cyber Incident	Radiological / Nuclear Incident	Hazardous Materials	Prolonged IT Failure
1	What impacts (effects) can be expected from the hazard?	Postponement of University academic and administrative activties that are not considered essential. Movement of populations out of residentail facilities during periods of extreme temperatures	Closure/shutdown of all food-serving establishments, restrooms, bathrooms, drinking fountains, steam, building HVAC, research laboratories, fire protection sprinklers, hydrants	Loss and/or exposure of sensitive electronic information. Loss of access to IT systems and data	Mass casualties and/or fatalities	Sickness among nearby persons; temporary loss of facility	Temporary loss of IT services
2	What is the likelihood of injury or death to members of the campus community?	Low	Low	Negligible	High	Sickess is possible depending on the materials in question.	Negligible
3	What health and safety issues may affect personnel responding to the hazard?	Interior facility lighting would be limited and/or completely out when emergency lighting battery packs are depleted	Lack of hydrants/sprinkler systems could severely hamper firefighting capabilities	Negligible	Only specially trained and equipped responders would be able to enter the area	Only specially trained and equipped responders would be able to enter the area	Negligible
4	What affect will the hazard have on the institution's ability to continue operations?	University telephones and internet capabilities would be eliminated.	University operatoins would be severely impacted	If IT systems are unavailable, University programs will need to make alternate arrangements to continue operations	University operations would be severely impacted	Operations in the immediate area will be impacted, but overall University operations should be able to continue (less there is a major release)	The University relies significantly on IT services to conduct academic and administrative operations. Based on the scope of the IT disruption, University operations may be significantly impacted
5	What affect will the hazard have on property, facilities, and infrastructure?	Universities heating and cooling capabilities would be eliminated. Secured entry ways would be compromised. Research materials could be compromised. Loss of external power will hamper delivery of other utilities to campus facilities	Assets that are temperature sensitive would be severely impacted. IT systems that need to be cooled may have to be shut down	The IT infrastructure may be severely impacted	University property, facilities and infrastructure may be severely impacted	Impacts should be shor-term	Negligible
6	What affect will the hazard have on the delivery of services to the University community?	Administrative, educational and communication operations would be severely compromised.	University operatoins would be severely impacted	IT service delivery may be severely impacted, but temporary work-around may be possible in many instances	University operations would be severely impacted	Operations in the immediate area will be impacted, but overall University operations should be able to continue (less there is a major release)	The University relies significantly on IT services to conduct academic and administrative operations. Based on the scope of the IT disruption, University operations may be significantly impacted
7	What affect will the hazard have on the environment from primary and secondary (cascading events)?	A power outage may result in the loss of containment systems used by research laboratories, chemical and manufacturing facilities and waste water treatment facilities. A loss of power less than 48 hours is not expected to create significant environmental consequences.	Leaks or other exposures could have an impact on the environment	Negligible	The environment could be severely impacted from the release of radioactive materials	Impacts to the area environment may be extensive, requiring specialized clean-up	Negligible
8	What is the likelihood that the hazard will harm the economic and financial condition of the University?	Dependent on the scope, magnitude, location and duration of the event economic conditions and financial stability may be severly affected.	Financial impact could be significant if the suspension of academic and administrative activities is prolonged	There is substantial probability that the University will be financially harmed by the incident	There is substantial probability that the University will be financially harmed by the incident	Financial harm may come to the programs residing within impacted facilities	Based on the scope and duration of the interruption, the University could face financial harm

9	What affect will the hazard have on the University's regulatory and contractual obligations?	Obligations for athletic/academic and special events, housing, course delivery, food services, medical services, public safety, grant deliverables, financial (employees, contractors, vendors, etc.) may be severly affected based on the scope, magnitude, location and duration of the event.	Contractually-obligated events may need to be postponed or canceled. Depending on the duration of the incident, University personnel may be delayed in carrying out regulatory obligations	Reports for regulatory compliance are often stored in digital formats. If those digital sources are unavailable, there may be delays in meeting regulatory obligations	Obligations for athletic/academic and special events, housing, course delivery, food services, medical services, public safety, grant deliverables, financial (employees, contractors, vendors, etc.) may be severly affected based on the scope, magnitude, location and duration of the event.	Contractually-obligated events may need to be postponed or canceled. Depending on the duration of the incident, University personnel may be delayed in carrying out regulatory obligations	Reports for regulatory compliance are often stored in digital formats. If those digital sources are unavailable, there may be delays in meeting regulatory obligations
10	What effect will the hazard have on the University's credibility or public confidence in the program?	Dependent on how the University responds and communicates with its constituents	Dependent on how the University responds and communicates with its constituents	Dependent on how the University responds and communicates with its constituents	Dependent on how the University responds and communicates with its constituents	Dependent on how the University responds and communicates with its constituents	Dependent on how the University responds and communicates with its constituents
	What mitigation strategies and considerations can be made for the hazard?						
1	Will the use of appropriate building construction materials lessen the impact of the hazard?	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
2	Will the use of appropriate building and construction standards lessen the impact of the hazard?	Not applicable	Not applicable	Not applicable	Not applicable	Yes, for spaces designated to house hazardous materials, enhanced safety systems will help lesson impact of a spill/release	Not applicable
3	Can hazard avoidance through appropriate land-use practices lessen the impact of the hazard?	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
4	Will/can relocation, retrofitting, or removal of structures at risk lessen the impact of the hazard?	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
5	Can the hazard be removed or eliminated?	Not applicable	Not applicable	No	Not applicable	Not applicable	Not applicable
6	Can the hazard be reduced or limited in amount or size?	Yes- appropriate use of back-up systems such as generators and UPS can significantly reduce the affects of the hazard.	Not applicable	Yes .. Early detection and warning systems may lead to early containment, which would limit exposure	Not applicable	Yes, for spaces designated to house hazardous materials, enhanced safety systems will help lesson impact of a spill/release	Redundant and backup systems may limit the impact of IT disruptions
7	Can the hazard be segregated from people, services, or facilities to be protected?	Not applicable	Not applicable	Not applicable	Persons in the nearby area can seek shelter in appropriate facilities	Yes. When not in use, hazardous materials can be stored in specially-protected spaces	Not applicable
8	Can the basic characteristics of the hazard be modified?	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
9	Can the rate of release be controlled for the hazard?	Not applicable	Not applicable	If early containment is put in place, then the rate of exposure may be lessened/stopped	Not applicable	Yes. Safety systems can help contains spills and releases	Not applicable
10	Can installation of protective systems and equipment lessen the impact of the hazard?	Yes- appropriate use of system redundancies to reduce the single points of failure can minimize the outages.	Stores of potable water can lengthen the time that personnel remain on campus	Yes. IT systems can be introduced to detect, warn, contain and log cyber incidents	Facilities/shelters could be constructed to fallout standards	Yes. Areas were known hazardous materials will be stored and handled can have specially-designed safety systems in place	Not applicable
11	Can the establishment of hazard warning and communication procedures lessen the impact of the hazard?	Not applicable	Not applicable	Yes. If the incident is spread via specific actions taken by constituents, emergency notification systems can be activated to provide the University community with instructions	If there is advance warning, the University will issue ISU Emergency Alerts to provide notification and instructions to the University community	Yes. Safety messages can be installed in areas where hazardous materials are stored and handled. Personnel who will be in the area of hazardous materials can also be made aware of hazards and appropriate response actions	The University's emergency notification systems rely on IT services for effective delivery. Alternate communications methods would be needed to notify the campus

12	Can the redundancy of critical systems (equipment, information, operations, materials) be used for mitigation?	Yes- appropriate use of system redundancies to reduce the single points of failure can minimize the outages.	Yes- appropriate use of system redundancies to reduce the single points of failure can minimize the outages.	Yes - IT can implement redundancies and backups to help limit the impact	Yes- appropriate use of system redundancies to reduce the single points of failure can minimize the outages.	Not applicable	Yes - IT can implement redundancies and backups to help limit the impact

Hazard Rankings

Hazard Profile	Tornado/Severe Weather	Earthquake	Floods	Winter Storms/Extreme Cold	Drought/Extreme Heat	Infectious Disease	Geomagnetic Storm	Study Abroad Incident (Accidental)	Lost Person	Building Collapse/Structural Failure/Major Fire	Transportation Accident (Vehicle, Rail, Air)	Credible Bomb Threat	Active Shooter	Hostage Situation	Terrorism	Civil Disturbance / Public Unrest	Study Abroad Incident (Intentional)	Prolonged Power Outage	Prolonged Water Outage	Cyber Incident	Radiological / Nuclear Incident	Hazardous Materials	Prolonged IT Failure
Probability of Occurrence	4.2	1.3	1.2	4.4	2.1	3.1	1.5	2.6	2.8	2.0	2.1	2.3	3.0	2.5	2.1	2.2	3.0	2.3	2.1	4.4	1.5	2.2	2.9
Severity/Magnitude	3.8	3.1	2.2	4.4	3.9	3.6	4.1	1.3	1.9	1.8	3.3	2.5	3.3	2.2	3.6	3.4	1.5	3.8	3.9	3.7	3.6	3.3	3.6
Scope	3.6	2.6	2.0	3.1	1.9	2.8	2.6	1.4	1.4	2.6	2.9	2.1	2.8	2.3	3.1	2.0	1.7	3.3	3.3	3.1	3.5	3.1	3.1
Population Density	4.5	3.8	3.1	4.6	3.8	3.5	3.9	1.2	1.1	3.5	4.0	3.8	3.7	2.4	4.4	4.1	1.2	4.7	4.7	4.5	4.4	4.2	4.4
Life Safety	4.5	3.0	2.3	3.2	2.5	3.4	2.5	2.6	2.6	4.3	3.8	3.9	4.1	3.9	4.5	2.9	3.2	3.8	3.7	2.4	4.3	4.1	2.8
Life Essential	4.4	2.9	2.5	3.1	2.6	3.1	2.9	2.0	2.1	3.6	3.1	3.1	3.1	2.8	4.0	2.4	1.9	4.2	4.3	2.4	4.2	3.9	2.9
Environmental	4.2	3.1	3.0	2.5	2.8	2.4	2.5	1.4	1.1	3.3	3.1	2.4	1.5	1.5	2.7	2.0	1.1	3.4	3.3	1.7	4.3	4.4	2.1
Public Health Services	4.1	3.1	2.7	2.6	2.7	4.3	2.6	1.1	1.0	2.9	3.1	2.1	2.7	2.3	3.5	2.2	1.0	3.5	3.6	1.8	4.3	4.1	2.5
Financial	3.8	3.1	2.8	2.6	2.1	2.7	3.1	2.4	1.8	3.5	3.1	2.6	2.9	2.8	3.6	2.6	2.7	3.3	3.3	4.4	3.8	3.5	4.1
Legal	2.8	2.4	2.1	1.6	1.6	2.6	1.7	2.8	2.7	3.4	2.9	2.8	3.3	3.3	3.4	3.1	3.3	2.3	2.4	3.9	2.9	2.8	3.4
Policy	2.1	2.1	1.6	1.6	1.4	2.4	1.4	2.4	1.8	2.1	1.7	2.1	2.4	2.4	2.6	2.5	2.7	2.1	2.2	3.7	3.1	2.5	3.3
Transportation	3.7	3.2	3.1	3.3	1.8	1.7	2.5	1.2	1.1	1.4	3.5	1.4	1.5	1.1	2.6	2.1	1.3	2.1	1.6	1.5	3.1	3.1	1.6
Critical Infrastructure/Key Resource	4.2	3.3	3.1	2.9	2.6	2.3	3.4	1.1	1.1	2.9	2.9	2.4	1.8	1.5	3.1	2.1	1.1	4.1	4.0	2.8	3.5	3.3	3.8
Research	2.9	2.4	1.9	1.8	1.5	1.6	2.1	1.1	1.0	2.3	1.9	2.0	1.9	1.5	2.6	1.6	1.1	3.4	3.0	2.8	2.8	2.6	3.6
Teaching & Learning	3.3	2.7	2.4	2.0	1.8	2.3	2.4	1.1	1.0	2.3	2.1	2.2	2.3	1.9	3.0	1.8	1.3	3.4	3.4	3.1	3.3	2.9	4.1
Dependencies	4.0	3.3	2.9	3.0	2.7	2.3	3.0	1.3	1.1	2.2	2.7	2.3	1.8	1.4	2.9	2.1	1.1	3.9	3.8	2.6	3.5	3.4	3.3
Civil Authorities	3.9	3.4	2.9	2.6	2.2	2.5	2.6	1.3	1.9	2.5	3.2	3.3	3.8	3.6	4.1	3.3	1.7	3.3	3.1	2.7	4.2	3.9	2.8
Housing	4.3	3.3	2.9	2.7	2.3	3.6	2.3	1.1	1.2	2.9	2.3	2.8	2.7	2.4	3.3	2.0	1.1	3.9	3.9	1.8	3.7	3.3	2.7
Totals	**68.0**	**52.0**	**44.6**	**52.0**	**42.3**	**50.0**	**47.0**	**29.3**	**28.6**	**49.4**	**51.8**	**46.0**	**48.3**	**41.8**	**59.0**	**44.3**	**32.0**	**60.6**	**59.6**	**53.1**	**63.7**	**60.6**	**56.8**

Hazard Specific Objectives

Hazard Specific Objectives	Tornado/Severe Weather	Earthquake	Floods	Winter Storms/Extreme Cold	Drought/Extreme Heat	Infectious Disease	Geomagnetic Storm	Study Abroad Incident (Accidental)	Lost Person	Building Collapse/Structural Failure/Major Fire	Transportation Accident (Vehicle, Rail, Air)	Credible Bomb Threat	Active Shooter	Hostage Situation	Terrorism	Civil Disturbance / Public Unrest	Study Abroad Incident (Intentional)	Prolonged Power Outage	Prolonged Water Outage	Cyber Incident	Radiological / Nuclear Incident	Hazardous Materials	Prolonged IT Failure
Continuity	•	•	•	•	•	•	•			•	•	•	•		•			•	•	•	•	•	•
Behavioral Health													•	•									
Communications Restoration	•	•	•				•								•								•
Damage Assessment	•	•	•				•			•	•				•			•	•		•		•
Debris Management	•		•							•	•				•						•		
Debris Removal	•		•							•	•				•								
Decontamination											•				•								
Disaster Intelligence	•	•	•			•	•	•				•	•	•	•	•	•	•	•	•	•		
Environmental Clean-up	•		•							•	•				•						•	•	
Environmental Monitoring	•		•							•	•				•						•	•	
Environmental Sampling	•		•							•	•				•						•	•	
EOC Operations	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Fatality Management	•				•					•	•		•		•		•				•		
Fire Suppression	•	•								•	•				•				•		•		
Food and Water Distribution	•		•	•		•				•	•				•			•	•		•		
HazMat	•	•								•	•				•						•	•	
Housing/Sheltering	•		•	•	•	•	•			•	•				•			•	•		•		
Incident/Unified Command	•	•	•						•	•	•	•	•	•	•	•					•	•	
Law Enforcement	•	•	•			•			•	•	•	•	•	•	•	•	•			•	•	•	
Mass Care	•					•				•	•				•						•		
Medical Counter Measures						•															•	•	
Potable Water Restoration			•																•				
Power Restoration	•	•					•											•					
Public Information	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Search and Rescue	•								•	•	•				•								
Traffic and Access	•	•	•	•						•	•		•		•	•		•			•		
Transportation Services	•		•	•				•			•		•		•			•			•		
Family Reunification	•							•	•	•	•		•		•		•				•		