Hazard Mitigation and Preparedness  
EADP 3035 (001)

Instructor: Dr. Laura Siebeneck  
Office Location: Chilton 308 F  
Semester: Spring 2022  
Office Hours: Tuesdays 10:00-2:00  
E-mail: laura.siebeneck@unt.edu  
Course Schedule: M 2:00-4:50  
Course Location: Chilton 240

Teaching Assistant: Ms. Cassidy Boyle  
Email: CassidyBoyle@my.unt.edu  
Office Hours: By Appointment Only  
Office: Chilton 302

Prerequisite: EADP 3010 or consent of the instructor.

Course Description
This course provides an overview of hazard mitigation and preparedness as it relates to the field of emergency management. Throughout this course, students will be introduced to a variety of hazards, including meteorological, geological, hydrological, and technological hazards and the mitigation and preparedness strategies that can be taken to minimize hazard risk and vulnerability. Risk and vulnerability methodology will also be emphasized in this course. Additionally, students will also become familiar with mitigation and preparedness practices and programs as well as policies at the federal, state, and local government levels that promote long-term community resilience and sustainability. Finally, students will gain hands-on experience reviewing a local hazard mitigation plan and will be introduced to the new FEMA Mitigation Plan Guidance and Review Tool.

Course Objectives
The course will provide students with the knowledge and resources to:

1. Identify, profile, and assess hazard risk and vulnerability as necessary for hazard mitigation and preparedness planning.
2. Recognize hazards and develop metrics for estimating potential losses from hazard events.
3. Develop and review local and state hazard mitigation plans.
4. Know the roles that local, state, and federal governments have in hazard mitigation and emergency preparedness.
5. Identify key mitigation and preparedness programs/policies offered by the federal government.

Course Text

Additional and supplemental readings will be posted on Canvas.
Readings
Students are expected to complete all required readings prior to the corresponding topic’s class period. This will allow you to be prepared for class discussions and help you retain the information conveyed in this course.

Grading Scale
A: ≥90 points  B: 89-80 points  C: 79-70 points  D:69-60 points  F <60 points

Grading
5 points  Attendance
5 points  Assignment 1: Stop Disasters Game: Challenges in Mitigation &Preparedness
15 points  Assignment 2: Local Hazard Identification and Risk Assessment
10 points  Skills Demo (3 short assignments)
25 points  Project: Local Hazard Mitigation Plan Review
20 points  Midterm Exam
20 points  Final Exam
**Total: 100%**

Attendance
Because we only meet once a week, every class meeting is essential to your success. To encourage your attendance, punctuality, and learning, I will take attendance at the beginning of class. Please plan to arrive on time and plan to stay the entire class. Students will be allowed 2 absences before their overall grade will be lowered 1 point for each additional absence (e.g. from 5 to 4), up to a total of 5 points. Therefore, there are no excused absences. However, this rule may be waived in extreme and documented circumstances, (e.g. serious illness, death in the family, injury, etc.). In these special cases please contact me before class so I can work with you to get you caught up.

Students will also be penalized for arriving late to class or leaving early. Each tardy or leaving early occurrence will result in a .5-point deduction from the attendance grade. If you have to miss class for any reason, please arrange to get notes from a fellow classmate. Though I do post my slides on Canvas, there is often a lot of information discussed and diagramed on the board during lecture. All material covered in class is important.

Midterm and Final Exam
To encourage you to keep up with the readings, lectures, and documentaries, a midterm and final exam will be given. The midterm exam is scheduled for **March 7th** and the final exam will be **May 9th from 1:30 to 3:30 p.m. in Chilton 240**. These exams will consist of a combination of true/false, multiple-choice, short answer, and short essay questions. The final exam is not cumulative. Exams must be completed on the scheduled exam date. Exam make-ups and rescheduled exams will be limited to special circumstances (e.g. illness, death in the family, etc.) and with prior notification only. Make-up exams, if granted, may be different than the one given in class.
Assignment 1: Stop Disasters Game: Challenges in Preparedness and Mitigation.
Studies suggest that game-based learning can serve as a useful educational tool for teaching new concepts and ideas to various populations. For this assignment students will play and write a review of the online computer game, “Stop Disasters Game.” Specific instructions for this assignment are posted on Canvas. This assignment is due **February 21st.**

Assignment 2: Local Hazard Identification and Risk Assessment
You will be responsible for completing a risk assessment on a single hazard for a county of your choice. This assignment is due at the beginning of class **March 28th.** More information about this assignment is posted on Canvas.

Skills Demo Assignments. Throughout the semester, we will be gaining hands-on experience using some of the tools and techniques commonly applied in mitigation and preparedness planning and implementation. These skills will be introduced during class and you will have the opportunity to practice them in our lab and/or at home. There will be three skills demo assignments assigned during the semester. The due dates are on the course schedule. These will be turned in via Canvas.

Group Project
In this class, you will have the opportunity to apply the concepts and materials covered in this course to review a local or state hazard mitigation plan. The objectives of this project are to (1) demonstrate thorough understanding of the basic requirements of plan, (2) gain experience reviewing a plan, (3) gain exposure to what makes a strong plan versus what makes a weak plan, (4) enhance written and verbal communication skills, and (5) gain experience working in a team setting. More details about this project are on Canvas.

E-Mail
Students are welcome – and encouraged – to contact me using e-mail if they have any questions or would like make an appointment to see me outside of scheduled office hours. I generally respond to e-mails within 24 hours of receiving them, however, I may take more time to reply during weekends or holidays.

All students are **REQUIRED** to have a UNT e-mail address. All e-mailed notifications pertaining to this class will be sent through those channels. In other words, if you do not have an account set up at UNT, you may miss out on important information. It is the responsibility of the student to have this account set up.

Students are expected to maintain a high level of professionalism when writing e-mails. E-mails should include a proper salutation, use complete sentences, and conclude with the sender’s signature. Also please indicate what class you are in. E-mails should not resemble a text message (i.e. C U L8 R). Students are training to be emergency management professionals who will one day represent UNT and the EADP program. Any e-mails that are informal or unprofessional will not receive a response.
Department Mailbox
If you need to turn in an assignment outside of class time, you may bring the assignment to the EMDS located in Room 302 in Chilton Hall during regular office hours (9-5). Please ask the assistant at the front desk to time stamp the assignment and place it under my door or in my mailbox. It is also a good idea to e-mail me to confirm that I received the assignment. If the assignment is not time stamped and is turned in late, points will be deducted based on the day I retrieve it from the mailbox.

Cheating and Plagiarism
As future emergency management officials, it is imperative to maintain the upmost level of integrity and honesty. Your actions are not only a reflection of your character, but the reputation of this program and university. Cheating and plagiarism will not be tolerated. The UNT definition and policy on cheating and plagiarism is found at the end of the syllabus. Plagiarism.Org, expands this definition to include:
- Turning in someone else’s work as your own
- Copying words or ideas from someone else without giving credit
- Failing to put a quotation in quotation marks
- Giving incorrect information about the source of the quotation
- Changing words by copying the sentence structure
- Copying so many words or ideas from a source that it makes up the majority of the work, whether you give it credit or not (i.e. copying and pasting from a variety of sources and calling it your own, even if you use citations.)

At a minimum, any student caught cheating or plagiarizing on any assignment or exam will receive a zero and a full letter grade reduction in the course. The instructor also reserves the right to assign the student an automatic F in the course. All instances of cheating or plagiarism will be reported to the Department and University for further disciplinary action. Cheating and plagiarism are serious offenses and are unbecoming of future emergency managers and leaders of our communities. There are no second chances. Please, if you have any questions about whether you are citing sources correctly or if you are unsure whether you are plagiarizing or not, come see me before you hand in the assignment. I am more than happy to help.

Student Behavior
All students are expected to conduct themselves in a professional manner at all times. Students are expected to be respectful to the instructor, fellow classmates, and guest speakers. Any behavior that is disruptive or disrespectful – including but not limited to – talking when the instructor or fellow classmate is speaking, rudeness, listening to your i-pod, surfing the internet, checking Facebook, texting, talking on your cell phone, sleeping, etc. – will not be tolerated and the student will be asked to correct the behavior and/or asked leave the class. Additionally, no tobacco use of any form is permitted in class. Repeated offenses will result in a meeting with our program director and/or reporting to the College and University.
Use of Electronics
Students are welcome to use a laptop or tablet in class for the purpose of note-taking and completing in-class activities. Other uses of electronic devices for the purpose of entertainment (movies, social media etc.) is not allowed. Additionally, students do not have permission to record the lecture. Violations may result in the student being reported to the Dean of Students for further discipline.

COVID-Related Policies

Face Coverings
UNT encourages everyone to wear a face covering when indoors, regardless of vaccination status, to protect yourself and others from COVID infection, as recommended by current CDC guidelines. Face covering guidelines could change based on community health conditions.

Attendance
Students are expected to attend class meetings regularly and to abide by the attendance policy established for the course. It is important that you communicate with the professor and the instructional team prior to being absent, so you, the professor, and the instructional team can discuss and mitigate the impact of the absence on your attainment of course learning goals. Please inform the professor and instructional team if you are unable to attend class meetings because you are ill, in mindfulness of the health and safety of everyone in our community.

If you are experiencing any symptoms of COVID-19 (https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html) please seek medical attention from the Student Health and Wellness Center (940-565-2333 or askSHWC@unt.edu) or your health care provider PRIOR to coming to campus. UNT also requires you to contact the UNT COVID Team at COVID@unt.edu for guidance on actions to take due to symptoms, pending or positive test results, or potential exposure.

Course Materials for Remote Instruction
Remote instruction may be necessary if community health conditions change or you need to self-isolate or quarantine due to COVID-19. Students will need access to a laptop, webcam and microphone to participate in fully remote portions of the class. Additional required classroom materials for remote learning include the ability to Zoom. Information on how to be successful in a remote learning environment can be found at https://online.unt.edu/learn

UNIVERSITY AND DEPARTMENT POLICIES

End of the Semester Evaluations. Student Perceptions of Teaching (SPOT) is the student evaluation system for UNT and allows students the ability to confidentially provide constructive feedback to their instructor and department to improve the quality of student
experiences in the course. The SPOT assessment is made available during the last 2 weeks of the course and the instructor will remind the students to compete this important process.

RELEVANT POLICIES TO THIS COURSE

CHEATING AND PLAGIARISM: Academic integrity emanates from a culture that embraces the core values of trust and honesty necessary for full learning to occur. As a student-centered public research university, the University of North Texas promotes the integrity of the learning process by establishing and enforcing academic standards. Academic dishonesty breaches the mutual trust necessary in an academic environment and undermines all scholarship. UNT Policy 06.003 defines cheating as “the use of unauthorized assistance in an academic exercise” and plagiarism as the “use of another’s thoughts or words without proper attribution in any academic exercise, regardless of the student’s intent.” Cases of academic dishonesty will be handled in accordance with UNT Policy 06.003 Student Standards of Academic Integrity and in accordance with the process outlined by the Office of Academic Integrity (http://facultysuccess.unt.edu/academic-integrity).

DISABILITY ACCOMMODATION: The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time, however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information see the Office of Disability Accommodation website at http://www.unt.edu/oda. You may also contact them by phone at 940.565.4323.

ACCEPTABLE STUDENT BEHAVIOR: Student behavior that interferes with an instructor’s ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The university's expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at www.deanofstudents.unt.edu
PORTABLE ELECTRONIC DEVICES IN THE CLASSROOM: When used appropriately, certain technologies, such as laptop computers, tablets, and smartphones, can enhance the university classroom experience. They also increasingly play a role in promoting campus safety by allowing students to receive severe weather alerts and other important risk information. However, when used inappropriately those same technologies can become a distraction to the individual user, other students, and the instructor. Thus, while students may use portable electronic devices for taking class notes, searching the web for class-related content and resources, and receiving risk warnings and alerts, they may not be used for conducting personal communications (e.g., texting and e-mailing), accessing social media, or any other non-academic purposes. In the event that a student’s use of portable electronic devices causes a distraction, he or she will first be asked to refrain from such use, and, if the problem persists, will be asked to leave the classroom.

Student Support Services --Mental Health
UNT provides mental health resources to students to help ensure there are numerous outlets to turn to that wholeheartedly care for and are there for students in need, regardless of the nature of an issue or its severity. Listed below are several resources on campus that can support your academic success and mental well-being:

- Student Health and Wellness Center (https://studentaffairs.unt.edu/student-health-and-wellness-center)
- Counseling and Testing Services (https://studentaffairs.unt.edu/counseling-and-testing-services)
- UNT Care Team (https://studentaffairs.unt.edu/care)
- Individual Counseling (https://studentaffairs.unt.edu/counseling-and-testing-services/services/individual-counseling)

Emergency Notification & Procedures
UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Canvas for contingency plans for covering course materials.

Retention of Student Records
Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Canvas online system, including grading information and comments, is also stored in a safe electronic environment for one year. Students have the right to view their individual record; however, information about student’s records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University’s policy. See UNT Policy 10.10, Records Management and Retention for additional information.
**TENTATIVE COURSE SCHEDULE**

Below is a tentative schedule for the course. Every effort will be made to adhere to this schedule however the schedule may change depending on the needs of the class. Any changes to the schedule will be addressed in class.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic and Reading</th>
<th>Assignment Deadline</th>
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<tbody>
<tr>
<td>Jan 24th</td>
<td>Introduction to Course, Syllabus, &amp; Students Review of Hazard and Disasters What is Mitigation and Preparedness? <em>Schwab Chapter 1 and 2</em></td>
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<tr>
<td>Jan 31st</td>
<td><strong>Meteorological Hazards</strong> <em>Schwab Chapter 3</em></td>
<td>Notify instructor of county and hazard selected for the risk assessment (in class)</td>
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<tr>
<td>Feb 7th</td>
<td><strong>Meteorological Hazards (cont.) / Geologic Hazards</strong> <em>Schwab Chapters 3 and 4</em></td>
<td>Skills Demo #1 Due</td>
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<tr>
<td>Feb 14th</td>
<td><strong>Geologic Hazards / All Hazards Approach</strong> <em>Schwab Chapters 3 and 4</em></td>
<td>Skills Demo #2 Due</td>
</tr>
<tr>
<td>Feb 21st</td>
<td><strong>Intro to Mitigation and Preparedness Techniques I</strong> <em>Schwab Chapter 12</em></td>
<td>Assignment #1 Due</td>
</tr>
<tr>
<td>Feb 28th</td>
<td><strong>Hazard Mitigation and Preparedness Tools and Techniques II</strong> <em>Schwab Chapter 12 Exam Review (In Class)</em></td>
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<tr>
<td>March 7th</td>
<td><strong>Midterm Exam (in class)</strong></td>
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<td>March 14th</td>
<td>Spring Break – No Class 🧑‍🏫</td>
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<tr>
<td>March 21st</td>
<td><strong>Risk and Vulnerability Assessments</strong> <em>Schwab Chapter 12</em></td>
<td>Skills Demo #3 Due Friday, March 25th.</td>
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<td>March 28th</td>
<td><strong>Preparing and Reviewing Hazard Mitigation Plans Workshop I</strong> <em>All materials will be posted on Canvas</em></td>
<td>Assignment #2 Due</td>
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<tr>
<td>Date</td>
<td>Topic</td>
<td>Assignment/Notes</td>
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<tr>
<td>April 4th</td>
<td>Role of the Federal, State, and Local Government in Mitigation</td>
<td>Project: Plan Review Worksheet Due via Canvas.</td>
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<td></td>
<td>*Schwab Chapter 6 (6.1-6.4)</td>
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<td>*Schwab Chapter 7</td>
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<tr>
<td>April 11th</td>
<td>Preparing and Reviewing Hazard Mitigation Plans Workshop I</td>
<td>Project: Individual Plan Review due at the beginning of class. Bring 2 copies!</td>
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<td>April 18th</td>
<td>Preparedness Policy, Planning, and THIRAs</td>
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<td></td>
<td>*Schwab Chapter 11</td>
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<tr>
<td>April 25th</td>
<td>Preparedness Policy, Planning, and THIRAs</td>
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<td></td>
<td>*James Schwab: 2010 Hazard Mitigation: Integrating Best Practices into Planning - Posted on Canvas</td>
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<tr>
<td>May 2nd</td>
<td>Class Presentations / Final Review</td>
<td>Project: Final Group Plan Review Due</td>
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<td>Project: Group PowerPoint Presentations Due</td>
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<tr>
<td>May 9th</td>
<td>Final Exam 1:30-3:30</td>
<td>(*Note different start time!!!)</td>
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All deadlines are 2pm on the noted due date.
EADP 3035 Hazard Mitigation and Preparedness
Assignment 1: Stop Disasters Game: Challenges in Mitigation and Preparedness

Studies suggest that game-based learning can serve as a useful educational tool for teaching new concepts and ideas to various populations. For this assignment students will play the “Stop Disasters Game” and answer the questions asked below. The specific instructions for this assignment are as follows:

**Step 1:** Go to the UNISDR Stop Disaster Game website at: [http://www.stopdisastersgame.org/](http://www.stopdisastersgame.org/) Click “Launch Game”

**Step 2:** Click a location of the map to navigate to the scenario selection page.

**Step 3:** Select a location and scenario. Next, Set the difficult to: “Medium Difficulty” level by clicking the link with the 2 houses. Before you being the game write down what your mission. You will need this for your evaluation of the game.

**Step 4:** Play the game. Then, print off your final score as proof of completing the game. **Turn this in.** (If you have trouble printing the score directly from the game, take a screen-shot of the score, safe it in a word doc or as an image file, and then try printing it.)

**Step 5:** Write and turn in a 1.5 -2 page (double-spaced, 12 pt. Times New Roman, 1 inch margins) paper evaluating your experience implementing mitigation and preparedness strategies for the particular disaster scenario you played. Your evaluation should include the following elements:

1. **Introduction** – Briefly describe the setting, hazard, population, scenario, and mission.

2. **Strategy** – Based on your scenario, describe your strategy (or game plan) for minimizing loss of life and property.

3. **Description and Evaluation of Mitigation and Preparedness Tools** – Provide an overview of the mitigation and preparedness strategies presented in your scenario. What strategies did you use and why?

4. **Challenges in Preparedness and Mitigation.** Describe any constraints you encountered when trying to employ your mitigation and/or preparedness strategies. In other words, did anything prohibit you from doing what you wanted? Finally, are the mitigation and preparedness strategies included in this game adequate? Why or why not? What other strategies would you include if you were to update the game?

This assignment is due at the beginning of class **February 21st** via Canvas. Late assignments will be accepted up to 1 week late with a 5% penalty per day (including weekends).
Assignment Overview

The risk assessment provides the foundation and rationale for many of the activities that emergency managers carry out during the mitigation, preparedness, response, and recovery processes. For this assignment, you will gain hands-on experience conducting a short risk assessment for a local jurisdiction. As part of this assignment, students will select any county in the United States and will conduct a risk assessment on one hazard prevalent in that county. The structure of this risk assessment will closely follow the requirements outlined in CFR 44 §201.6(c)(2), although some modifications will be made. Throughout the first few weeks of class, you will be introduced to different components of a risk assessment and assessment strategies that will be useful in helping you complete this assignment.

Assignment Steps

1. Select a county and hazard to assess no later than January 31st. You will provide the name of the county to me during class. Failure to select a county and hazard by this day will result in a 1% per day point deduction until turned in.

2. Conduct a Risk Assessment that adheres to the structure and requirements described below.

I. Description of the Hazard: For this section, you will include a description of the type, location, and extent of the natural hazard affecting the jurisdiction. Specifically:
   a. **Type** - Introduce the hazard. What is the hazard? Provide a definition and description of the hazard. Be sure to include information about why it occurs and when it occurs (e.g. is it seasonal? Day vs. night? Time of year).

   b. **Location** – Describe the geographic area within your county that is affected by the hazard. In other words, where does this hazard occur in your county? What areas in your county can be impacted? Along with a description of the location, you can provide a map illustrating the location of the hazard (e.g. flood zone, earthquake faults and liquefaction zones, wildfire risk areas, storm surge inundation zones, etc.) In some cases, there may not be a geographic-specific location (e.g. tornadoes). In these cases, explain why the entire planning area may be equally at risk to a particular hazard.

   c. **Extent** - What is the potential strength and magnitude of the hazard? Here you will describe how this hazard is measured (Saffir-Simpson, Enhanced Fujita, MMI, Flood Zone designation etc.) Include information about the duration and speed of onset of the hazard.

   Note the extent to which your county is at risk to the hazard. For example, if the county has a seismic risk, what is the range of earthquake magnitude they can experience? If you are looking at hurricane risk for a coastal community, what
II. **Hazard History and Frequency:** For this section you will describe the previous occurrences of the hazard in your selected county. You will also describe the probability of future hazard events.

a. **Hazard history** – This section will include a history of the previous hazard events. Here you want to (1) provide a summary of previous occurrences (e.g. how many tornadoes, floods, etc. have occurred in your county), (2) provide a short narrative of major events that have impacted the county (e.g. events that caused significant damage) (3) provide a summary of recent occurrences (within the last 5 years) and (4) describe if there were any disaster declarations as a result of the hazard being profiled. *Always* note any Presidential Disaster Declarations. Additionally, include a table of all previous occurrences you were able to find at the end of your report. If this is more than one page, please just provide the first page of results. This can be printed from the NCDC, SHELDUS, or other site that you used to collect the data.

b. **Disaster Probability** – For this section you will provide a description of the likelihood of the hazard occurring in your community. This can be a statistical calculation (e.g. % chance of a tornado in Denton County in any given year) or a general description (e.g. highly likely, likely, etc.). You can also note the recurrence interval (a tornado impacts Denton County once every “x” years.) Regardless of whether you choose to use a statistical calculation or general description, *the method used to describe probability needs to be detailed in your write-up.* I encourage you to use the method covered in Skills Demo #1 for this section of your analysis.

III. **Hazard Impacts.** This section will provide an overall summary of the hazard’s potential impacts on the community as well as include a description of the community’s vulnerability to the hazard.

a. Describe how much of the population is at risk. Does this hazard pose any threats to special needs populations?

b. What structures are at risk?

c. Are any critical facilities at risk (e.g. water treatment plan, nuclear power plant, etc.)

d. What are the community’s greatest vulnerabilities? You may use the CDC-generated vulnerability maps covered in class (Skills Demo #3) to help guide this section of the assessment.

IV. **Annotated Bibliography.** For this final section, you need to include references for all sources consulted during this assignment. Along with each reference, please provide a 1-2 sentence description specifically noting how you used each reference to carry out the risk assessment.
**Format:** All submitted materials need to be Times New Roman, 12 font size, single-spaced 1 inch margins all around. The expected page length of this assignment should be approximately **3-5 pages** (not including the annotated bibliography and hazard history table). This number may increase depending on the number of tables, figures, and pictures included. But at a minimum, I expect approximately 2.5 of the pages to include text. Please staple this assignment and include your name on top of the first page. Failure to do either of these will result in a 2% penalty. Please feel free to include pictures, maps, graphs, and tables. **Be sure to include in-text citations!!** I would like you to use the (Author, Year) format.

**Grading:** You will be graded on the professional quality and completeness of the content for each of the three risk assessment sections (75%), format, grammar, and presentation (15%), and your annotated bibliography (10%).

**Data Sources:** These are many sites that provide good data for risk analyses. Several sites more frequently used to collect hazard data include the following:

1. SHELDUS (Spatial Hazards Events and Losses Database for the US)
   [http://webra.cas.sc.edu/hvri/products/sheldus.aspx](http://webra.cas.sc.edu/hvri/products/sheldus.aspx)
2. National Climate Data Center – Storm Events Database
3. Data.gov - information about Presidential Disaster Declarations (you must do a search)

Other good sources include the USGS, National Weather Service, National Fire Information Council (NFIC), the Tornado History Project, and FEMA’s National Flood Insurance Program website. You can also check out the community’s home webpage, newspaper articles, etc. to gather info about the hazard history.

**Use of current or previous risk assessments is prohibited.** Students may not use a pre-existing risk assessment to gather the information for their assignment. The purpose of the assignment is to learn how to use data and gain practice applying the basic research skills you will need to demonstrate when in the field. Merely paraphrasing someone else’s risk assessment is not going to cut it and you will get a zero on the assignment if you do this.

**Due Date:** This assignment is due on Canvas by 2pm **March 28th.** You will also be submitting the assessment to TurnitIn. Late assignments will be accepted up to 1 week late with a 5% penalty per day (including weekends). No e-mailed assignments will be accepted.

**Early Feedback:** If students would like feedback on this assignment prior to handing it in, I am happy to review it and provide comments. Any student wishing to get feedback should provide me a draft no later than noon the Friday before the assignment is due so there is enough time for me to review it and for you to make any changes to the assignment.
Project Overview

For this project, you will have the opportunity to apply the concepts and materials covered in this course to review a draft of a local hazard mitigation plan. The objective of this project is to demonstrate thorough understanding of the basic requirements of a hazard mitigation plan, the context in which a plan is created, and apply concepts discussed in class to improve upon existing plans.

Project Steps

1. Project groups (4-5 per group) will be finalized in class March 28th. Students may choose their own groups, however, the instructor may assign / modify the groups as necessary. The instructor will not mediate over any group issues or grievances.

2. Each group is responsible for selecting a hazard mitigation plan to review. The instructor will provide some plans to choose from that will be posted on Canvas. If you would like to review a plan other than one provided by the instructor, you must first get approval before continuing with the project. The plan must be a draft and not a finalized plan, and a plan update. Groups that fail to get their selected plan approved by me will receive a 10% deduction from their final grade.

3. As part of the Preparing and Reviewing Hazard Mitigation Plans Workshop on March 28th, students will learn about the requirements of a hazard mitigation plan and we will learn how to review a plan. There will be a worksheet to guide this activity, which you should be able to complete during class. You will need to turn it in on Canvas. This worksheet is due April 4th.

4. Individually, each student will review the plan selected by the team using the techniques demonstrated in class. Each student will turn in a copy of their individual checklist packets at the beginning of class on April 11th. You must turn in a paper copy to me. Your second copy may be paper or electronic.

5. As a Team, each group will compare their individual assessment and come up with an agreed upon final assessment during class April 11th. Each team must hand in both the final checklist and the Section 2 Narrative by May 2nd.

6. Each group will be responsible for presenting their evaluation of the plan as part of the project presentation described below. Project presentations are scheduled May 2nd.
Grading

Your final grade for this project will consist of four components: (1) Individual plan review, (2) Group plan review and report, (3) Group presentation, and (4) Group-member evaluations. Any late work will be accepted up to 1 week after the due date at a penalty rate of 5% per day, including weekends. Below is a breakdown of what each component is worth.

Plan Review Worksheet – 5 points
Individual plan review: - 10 points
Group plan review – 5 points
Group presentations: 5 points

Individual Plan Review Expectations

As part of this project, you will gain experience reviewing a local hazard mitigation plan. After meeting with your group and selecting a plan to review, students will be required to use the Local Mitigation Plan Review Tool to evaluate a plan. This part of the process must be done individually – students who work as a group on this section will receive a zero for this part of the assignment. Remember to complete both the checklist portion of the review (Elements A-E) as well as the written comments for Sections A: Plan Strengths and Opportunities for Improvements (Elements A, B, C, and D) as well as (Section B: Resources for Implementing your Approved Plan.)

Students will be required to turn in a copy of their individual Plan Review evaluation to the instructor on April 11th at the beginning of class. I will not accept reviews after we start the plan workshop.

***Be sure to turn in the checklist and the narrative detailing strengths, opportunities for improvement and resources for implement the plan!!! ***

Group Plan Checklist

Upon completion of the individual plan reviews, group members will meet and compare evaluations. The class period on April 11th is reserved for groups to complete this requirement. As a group, you will compare plan evaluations and derive one final plan evaluation that you will turn in with your final project. It is expected that there will be differences in evaluation scores and plan comments among group members – that is totally normal and common in the emergency management arena - so each group must then discuss their comments and decide on a final checklist for the plan as well as a final written assessment (Section A and B). This final plan will be turned in May 2nd.
Group Presentation

On May 2\textsuperscript{nd}, each team will provide a short presentation about the local hazard mitigation plan reviewed for this project. This presentation should be 8-10 minutes long and note the following items.

1. An introduction of your plan. Where is the community? What are some of the characteristics of the community (e.g. geography, climate, existing infrastructure, populations, economy). What hazards are present in the community?

2. What disasters have impacted the community? Has it experienced any Presidential Disaster Declarations (Yes, describe, No, next section)?

3. Describe the community’s hazard mitigation planning process.
   a. To the extent possible, describe how the community went about creating the plan. Specifically, summarize how the local community organized resources, assessed risks, developed the plan and mitigation actions, and implemented the plan / monitored progress.

4. Describe your team’s evaluation of the plan.
   a. What are three strengths and/or weaknesses in the plan you reviewed? When noting strengths, in what ways could this plan serve as a model for other communities? When describing weaknesses, what does your group recommend the local community do in order to improve the plan? Feel free to discuss any portion of the planning process in your response.
   b. Describe and elaborate on 3 things that your group learned while evaluating this plan that you think you can apply if charged in the future with developing a hazard mitigation plan. You can discuss about any portion of the planning process, risk assessment strategy, project management strategies, etc.

Project Contribution Statement

In order to ensure that each member is contributing to the project, you will have an opportunity to compete a project contribution statement on Canvas. Each member of the group is expected to submit a brief summary describing his/her contribution and the contributions made by each member of the group. In other words, part of each student’s grade on this project will be based on a peer review of group members’ contributions to the project that will assess participants’ attendance at group working meetings, submission of work as agreed, and useful insights or suggestions. Note that if a student does not adequately participate in group activities, with no genuine reason, he/she will score a \textbf{zero} on the group portion of the project. I will send out the link for this May 2\textsuperscript{nd}. 

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