



Hazard Mitigation and Preparedness EADP 3035 (001)

Instructor: Dr. Laura Siebeneck
Semester: Fall 2014
Course Schedule: T 2:00-4:50
Course Location: ENV 190

Office Location: Chilton 204J
Office Hours: M 2-4 pm, T 10am-12pm
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Prerequisite: EADP 3010 or consent of the department.

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

There is no assigned textbook for this course. All required readings will be posted on Blackboard.

Readings

Students are expected to complete all required readings prior to the corresponding topic's class period. In other words, come to class appraised and prepared to discuss the readings.

Grading Scale

A: $\geq 90\%$ B: 89-80% C: 79-70% D: 69-60% F <60%

Grading

5% Attendance

5% Assignment 1: Stop Disasters Game: Challenges in Mitigation and Preparedness

15% Assignment 2: Local Hazard Identification and Risk Assessment

25% Final Project

25% Midterm Exam

25% Final Exam

Total: 100%

Attendance

Attendance will be assessed at least once every class session. Students are expected to arrive at class on time and to stay the entire class. This class meets only once a week and students should be aware that a significant number of absences will make it difficult to pass the course. 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 so I can work with you.

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. 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 **October 14th** and the final exam will be **December 9 from 1:30 to 3:30 p.m. in ENV 190**. 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, will 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 on page 9 of the syllabus. This assignment is due **September 23rd**.

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 **October 21st**. More information about this assignment are found on page 10 of the syllabus.

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 page 13 of the syllabus.

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 and section 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 Public Administration Office located in Room 204 in Chilton Hall during regular office hours (9-5). Please ask the assistant at the front desk to time stamp the assignment and to place it in the 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. Engaging in this behavior not only reflects poorly on the student, but the department and University as well. 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.

UNIVERSITY AND DEPARTMENT POLICIES

End of the Semester Evaluations

Required: The dates students can complete the Student Evaluation of Teaching Effectiveness are **the final two weeks of the semester**. This is your opportunity to evaluate the instructor. Students can complete the on-line course evaluation at my.unt.edu

POLICY ON CHEATING AND PLAGIARISM

Notice of this policy shall be given in all public administration classes each semester, and written copies shall be available in the public administration office.

Definitions

The UNT Code of Student Conduct and Discipline defines cheating and plagiarism “as the use of unauthorized books, notes, or otherwise securing help in a test; copying other’s tests, assignments, reports, or term papers; representing the work of another as one’s own; collaborating without authority with another student during an examination or in preparing academic work; or otherwise practicing scholastic dishonesty.”

Penalties

Normally, the minimum penalty for cheating or plagiarism is a grade of “F” in the course. In the case of graduate departmental exams, the minimum penalty shall be failure of all fields of the exam. Determination of cheating or plagiarism shall be made by the instructor in the course, or by the departmental faculty in the case of departmental exams.

Cases of cheating or plagiarism on graduate departmental exams, papers, theses, or dissertations shall automatically be referred to the departmental Curriculum and Degree Programs Committee. Cases of cheating or plagiarism in ordinary course work may, at the discretion of the instructor, be referred to the Curriculum and Degree Programs Committee in the case of either graduate or undergraduate students. This committee, acting as an agent of the Department, shall impose further penalties, or recommend further penalties to the Dean of Students, if they determine that the case warrants it. In all cases, the Dean of Students shall be informed in writing of the case.

Appeals

Students may appeal and decision under this policy by following the procedure laid down in the UNT Code of Student Conduct and Discipline.

POLICY ON DISABILITY ACCOMMODATION

The Department of Public Administration, in cooperation with the Office of Disability Accommodation, complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request during regular office hours before the 12th class day of regular semesters (4th class day of summer sessions).

POLICY ON LAPTOPS AND CELL PHONES IN THE CLASSROOM

The classroom setting at an institution of higher learning is intended to serve as a venue that permits the transfer of knowledge and facilitates the sharing of ideas. As such, it is imperative that any distractions from these stated objectives be avoided and kept to a minimum. Potential disruptions include modern electronic devices such as laptop computers and cell phones.

Students are allowed to take notes on personal laptop computers to enhance the learning process, but they should not activate their internet browsers during class or use computers for non-academic purposes (as this diverts attention from the lecture/discussion for both the student using it and others nearby). Students should also avoid using cell phones to search the Internet or text while class is in session.

Exceptions to this policy will be at the discretion of the faculty only and may occur if searching the Internet is necessary to find additional information or facts related to the subject being covered on that particular day.

POLICY ON STUDENT BEHAVIOR IN THE CLASSROOM

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 Center for Student Rights and Responsibilities 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.unt.edu/csrr.

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.

- August 26th** **Introduction to Course, Students
Review of Hazard and Disasters
What is Mitigation and Preparedness?**
- September 2** **Meteorological Hazards
**Notify instructor of county selected for the risk assessment
assignment (in class)**
- September 9** **Meteorological Hazards (cont.) / Geologic Hazards**
- September 16** **Geologic Hazards / Technological Hazards**
- September 23** **Intro to Mitigation and Preparedness Techniques I
Assignment 1 Due
- September 30** **Hazard Mitigation and Preparedness Tools and Techniques II
Form Project Groups in Class
*Exam Review***
- October 7** **Risk and Vulnerability Assessments **Material will be on the final**
- October 14** **Midterm Exam**

- October 21** **Preparing and Reviewing Plans Workshop**
**Notify instructor what plan you want to evaluate.*
***Assignment 2 Due*
- October 28** **Role of the Federal, State and Local Government in Mitigation**
- November 4** **Preparing and Reviewing Plans II**
*** Individual Plan Review Due (*Be sure to turn in both sections)*
- November 11** **Preparedness Policy, Planning, and THIRAs**
- November 18** **Preparedness Policy, Planning, and THIRAs II**
- November 25** **Building a Culture of Prevention**
Final Exam Review
- December 2** **Class Presentations/ Review**
***Group Final Reports Due*
- December 9** **Final Exam 1:30-3:30 ENV 190 (2 hour exam)**

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 Stop Disaster Game website at:

<http://www.stopdisastersgame.org/en/playgame.html>

Step 2: Play one of the 5 scenarios using the “Medium Difficulty” level.

Step 3: Write down what your mission is for the game. *You will need this for your evaluation of the game*

Step 4: 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, save it in a word doc, 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 **September 23rd**. Any assignment turned in during class after I have collected the papers on the due date will be subjected to a 3% penalty. Late assignments turned in after the due date will be accepted up to 1 week late with a 5% penalty per day (including weekends). No e-mail assignments will be accepted.

EADP 3035: Hazard Mitigation and Preparedness
Assignment 2: Local Hazard Identification and Risk Assessment

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 **September 2nd**. 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.

- b. **Location** – Describe the geographic area within your county that is affected by the hazard. There are several ways to do this. 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 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 category of hurricanes poses risks to this county?

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. In addition, please 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 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 determine this probability needs to be detailed in your write-up. We will cover different methods during the first half of the semester.

III. Hazard Impacts. This section will provide a 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 plant, nuclear power plant, etc.)
- d. What are the community’s greatest vulnerabilities?

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 references 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!!

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. SHEL DUS (Spatial Hazards Events and Losses Database for the US)
<http://webra.cas.sc.edu/hvri/products/sheldus.aspx>
2. National Climate Data Center – Storm Events Database
<http://www.ncdc.noaa.gov/stormevents/>
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 will also have to consult additional sources for more information about community characteristics, structures, population, etc.).

Due Date: This assignment is due at the beginning of class **October 21st**. Any assignment turned in during class after I have collected the papers on the due date will be subjected to a 3% penalty. Late assignments turned in after the due date 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 Thursday October 16th so there is enough time for me to review it and for you to make any changes to the assignment.

EADP 3035: Hazard Mitigation and Preparedness
Final Project: Hazard Mitigation Plan Review

Project Overview

For this project, you will have the opportunity to apply the concepts and materials covered in this course to review 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 (3-4 students per group) will be formed in class **September 30th**. The instructor will not mediate over any group issues or grievances. However, the instructor may assign / modify the groups as necessary.
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 Blackboard. 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. Groups that fail to get their selected plan approved by me will receive a 10% deduction from their final grade.
3. **Individually**, each student will review the plan using the techniques demonstrated in class. Each student will turn in a copy of their individual checklist packets at the beginning of class on **November 4th**. Then, group members will compare and synthesize the reviewed plan.
4. Each group will be responsible for a final report and project presentation described below. Project presentations are scheduled **December 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.

Individual plan review: 40%
Group plan review and report: 40%
Group presentations: 15%
Individual statement of project contribution: 5%

Individual Plan Review

The first part of this project is conducting an individual review of a local hazard 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 as well as the written comments for Sections A, Plan Strengths and Opportunities for Improvements (Elements A, B, and C) as well as (Section B: Resources for Implementing your Approved Plan.)

Students will be required to turn in a **photo copy** of their individual Plan Review evaluation to the instructor on **November 4th at the beginning of class**. I will not accept reviews after we start the plan workshop.

******Be sure to turn in both Section 1 and Section 2 of the formal plan evaluation. ******

Group Plan Checklist

Upon completion of the individual plan reviews, group members will meet and compare evaluations. The class period on **November 4th** 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. This final plan will be turned in with your final Group Plan Report (See Section 5 of the Group Plan for details).

Group Plan Report

Along with a copy of the group plan crosswalk, students will work together to create a final report. Specifically, this report must contain the following sections:

1. An introduction page that defines hazard mitigation and describes the purpose of this plan review. You should also identify the locale for which you are reviewing this plan.
2. A section describing your locale (city/county/state). You should include information about where this place is located (maps are encouraged). In addition, you will need to describe the area's demographic characteristics, physical geography, climate, existing infrastructure, economy, etc.

3. A section describing previous disasters events in your area. Be sure to include any Presidential Disaster Declarations that have been issued in your locale. The National Climate Data Center – Extreme Events Database and SHELDUS also include this information.
4. A section describing the hazard mitigation planning process.
 - a. To what extent possible, describe how the locale went about creating the plan. In other words, who was responsible for the plan, what agencies assisted in the creation of this plan, when was this plan created, and what steps were taken in the development of this plan.
 - b. Describe the general approach to hazard mitigation planning advocated by FEMA (and discussed in class). In other words, summarize how they organized resources, assess risks, develop the plan, and implement the plan / monitor progress.
5. A section that includes the formal Local Mitigation Plan Review as outlined by the Stafford Act and Title 44 Code of Federal Regulation (CFR) Part 201.
 - a. Here you will include your groups final assessment of the plan using the Local Mitigation Plan Tool (Both Sections 1 and 2).
 - b. Provide a copy of each group members original individual checklists at the end of the report.
6. A section outlining your group’s strategy for updating the plan. (2-3 pages)
 - a. If your team was tasked to update this plan how would you do it? What resources would you need? What stakeholders would you bring to the table? How would you engage the public? Where would you get information for conducting the risk and vulnerability assessment? What would be your proposed timeline for getting the draft completed? (Hint: Give yourself at least a year).

FORMAT

There is no specific format for the final report, however, the final product should be well organized, typed, in a consistent format, and free of grammatical errors. The final report should be between 10 and 20 pages double spaced. Feel free to include pictures, graphs, charts, maps, or other visuals that enhance the quality of this report. Be sure to cite all sources used for this report. Final reports will be due **December 2nd at the beginning of class**. I will provide a copy of my grading rubric for the report on blackboard in the weeks leading up to the project due date.

Group Presentations

The purpose of the group presentations is to share with your fellow students and your instructor the results of your plan review. These presentations will require you to use PowerPoint slides. Each presentation must discuss the 6 sections of the final report. Each group member must participate in this presentation (i.e. have equal speaking parts). Presentations will be given to the class **December 2nd**. The length of the presentation will depend on the number of groups; however expect to give a 10-12 minute presentation. More details about these presentations will be provided in class. I will provide a copy of my grading rubric for the presentation on blackboard in the weeks leading up to the presentations.

Project Contribution Statement

Each member of the group is expected to submit a detailed one-page summary (double spaced) 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 **zero** on the group project. This final project contribution statement should not be included in the final report and must be turned in separately at the beginning of class **December 2nd**.