

GEO/GLG 170

Disasters - Living on the edge

Fall 2018

Course Syllabus

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Course Descriptions and Outcomes

Course Description

Geology 170/Geography 170: Disasters -- Living on the Edge, 4 credits

Study of various environmental hazards, their causes, impacts on humans, and mitigations. Core topics are natural hazards (earthquakes, volcanoes, flooding, landslides, tornadoes, hurricanes), and anthropogenic hazards (climate change/global warming, nuclear hazards, and overpopulation). Additional topics may be covered: coastal hazards, pollution of groundwater, air, soil, and water, other atmospheric hazards (extreme weather, droughts), impacts from space, extinctions, biohazards, chemical hazards, and terrorism.

Successful completion of this course will earn 4 Natural Science (NS) credits toward the UW Colleges Associate of Arts and Science degree, and fulfill the Lab Science (LS) requirement.

Course Outcomes

As a result of taking this course, you will gain understanding and insight into the nature of disasters, including

- the physical process associated with natural hazards,

- the related concepts of disaster magnitude and the recurrence intervals of hazardous events,
- the geographic distribution of natural hazards,
- the historical impacts of natural hazards on society,
- how different social groups react to the potential threats associated with natural hazards, and
- the proactive and reactive mitigation strategies implemented to reduce the impact of natural hazards.

You will also enhance your academic skills by sharpening your abilities to

- interpret and synthesize information and ideas,
- analyze and evaluate arguments,
- interpret graphs, tables, and diagrams,
- read with comprehension and critical perception, and
- gather and assess information via the Internet.

Learning Assessment

Your class may participate in college, departmental, or institutional level learning assessments in any given semester. If the class is assessed, students will be informed of the process and given the option of not participating in the assessment. The UW Colleges assessment program enhances the quality and effectiveness of curriculum, programs, and services to our students because they are of primary importance for student learning. Learning assessments are conducted each semester in all disciplines for select courses offered by the UW-Colleges. The assessment results do not count towards your grade, but rather they are used to gather statistical information about student learning. The information derived from the analysis of the assessment data is used as guidance to your professors so that we can improve the effectiveness of our delivery of educational material in the classroom. If your class is chosen to participate in the UW Colleges assessment program this semester, I will provide you with additional information about which class activities will be incorporated into the assessment program.

Course Topics

The course is divided into four units with fourteen lessons. There is one lesson for each week of the semester. Each successive lesson builds upon information provided in earlier lessons. The cumulative effect of mastering the material associated with each lesson will provide you with a well-rounded overview of the tools of the geographer.

Unit and Lesson Titles:

Unit 1: Overview of Hazards

- Lesson 1: Overview of Hazards

- Lesson 2: The Disaster Cycle

Unit 2: Meteorological and Climatic Hazards

- Lesson 3: Introduction to Weather and Climate
- Lesson 4: Air Masses and Fronts
- Lesson 5: Thunderstorms and Tornadoes
- Lesson 6: Hurricanes
- Lesson 7: Drought

Unit 3: Anthropogenic Hazards

- Lesson 8: Air Pollution
- Lesson 9: Water Pollution

Unit 4: Geologic Hazards

- Lesson 10: Plate Tectonics
- Lesson 11: Earthquakes
- Lesson 12: Volcanic Eruptions
- Lesson 13: Tsunamis
- Lesson 14: Flooding

Expectations of Students

Your course, *Disasters--Living on the Edge* (GEO/GLG 170), is highly structured and adheres to a very strict timetable of course events. The course is divided into units. Each unit covers a broad area associated with disasters. The units are broken into a series of lessons. Each lesson emphasizes a specific topic. We work on a weekly schedule. One lesson is covered per week. Units may cover two or more lessons. As we move through the semester, you must complete all of the assigned readings, lab activities, discussion work, exams, and group activities as scheduled.

Readings

You will have several readings throughout the semester. Some of these readings will be required readings and others will be suggested readings. You must complete all of the required readings during the week for which they are assigned because they will be essential for participating in the weekly discussions and are important building blocks to understanding the material in future lessons.

Group and Individual Assignments

You will have both individual and group assignments during the semester. Each assignment emphasizes one of the issues that we study. Individual assignments are designed to provide you with insights to the key concepts associated with the specific issue being covered. Group assignments are designed to foster working relationships within a team atmosphere. Such working relationships are common when working professionally in the area of hazard mitigation.

Assigned Due Dates

Lab activities, discussion postings, exams, and group project work must be completed by the due dates indicated in the Course Calendar. Assignments that are not submitted by the due date will not be accepted for grading without significant cause.

Communication

Since we are working with an online course, we need to communicate with each other on a regular basis in order to ask any questions or to clarify any issues that arise during the semester. This also includes dialogue among members of the class with regard to group assignments. The best way for us to communicate is by using email, your *Personal Discussion Area*, or the different open discussion forums. I will promptly answer all inquiries.

My expectations of you during the semester include that you will

- complete all reading assignments in a timely manner,
- complete all written assignments as scheduled,
- post material to the discussion forums by the due dates,
- present all exams as scheduled,
- work as members of a group in a spirit of mutual cooperation, and
- communicate with each other in a timely manner.

Partnership

If you adhere to these guidelines, you should successfully complete the course. I view our work together as a partnership. Each party must meet his or her obligations for our work to be of value. I will strive to do my part of the work; please strive to do yours.

Readings and Other Materials

Note: There is no required textbook for this course.

Reading Assignments

There is a wealth of material on disasters available on the web. We will be using material from websites of federal, state, and local agencies, as well as from other sources for the assigned readings. For each lesson, I will provide you with a list of required and suggested reading available from various sources. You will have to read the required material as scheduled to keep up in the course. I strongly encourage you to also examine several of the suggested readings to further explore and reinforce the ideas and concepts that we will cover in each lesson.

Required Software

You must have access to Microsoft Office, Adobe Acrobat Reader, and Windows Media Player or Quicktime to successfully participate in the course. This software is routinely available on the computers in the computer labs of all UW College campuses. You can also find these software programs online at the sources provided below.

- **Microsoft Word**

The most current edition of MS Office (containing MS Word, Excel and other valuable programs) is available to University of Wisconsin students at discounted prices through the Wisconsin Integrated [Software Catalog](#).

- **Adobe Acrobat Reader**

You will need the latest version of Adobe Acrobat Reader. It is free and freely distributed software that lets you view and print Adobe Portable Document Format (PDF) files. If you do not have Adobe Acrobat Reader installed, please download it by visiting [Adobe's website](#).

- **Windows Media Player or Quicktime**

You will need to have Windows Media Player or Quicktime installed on your computer to view the video. If you are not sure if you have the needed program, run a *systems check* of your computer. You can find the link to the *systems check* on the portal page to D2L. If you do not have Windows Media Player or Quicktime installed, please download one of the programs by going to [Microsoft website](#) or [Apple website](#).

Antivirus Software

You should have a virus protection program such as McAfee or Norton running on your PC. You should also update your virus signature files often.

If a virus gets out among the users in an online course, it can take some time for everyone to get their computers cleaned up. If you are not running current antivirus software, please do so.

Discussion Forums

Open Discussion Forums

On our Discussion board, we have three open discussion threads where we can exchange general information. The first thread is *Raise Your Hand*. This is the place that you can ask me questions about the different topics that we are studying in the course. The second thread is the *Cyber Cafe*. This is an area where you can exchange information of the main topics of the course. You can consider this the chat area for the course. Please feel free to exchange ideas in the *Cyber Cafe*. The third thread is the *Current Events* forum where you can post any announcements about upcoming events that are relative to our course material.

Guidelines for Posting to Online Discussions

Following is a set of guidelines that you are to use for all of your postings to the discussion forums.

- Treat everyone with respect.
- Use appropriate language for a classroom setting.
- Do not make derogatory comments to a classmate either directly or implied.
- Do not post trivial comments.
- Do not use the Forums as a "soap box" for personal opinions.
- Do not post long and rambling commentaries to a discussion. If you need to write 300 words or more, use an attachment and briefly describe the contents of the attachment in the comment box.
- Do not "cut and paste" material from other websites into your postings. All postings are to be your own work. If you feel that a website offers valuable information, then provide the URL for the website and a brief explanation regarding its contents in your contribution.
- Use the other mechanisms available to you at the course site to communicate with your fellow classmates for exchanges that are off the topic. This would include the various Water Cooler Discussion Forums or direct email between individuals.

Dropbox

Submitting Assignments to the Dropbox

All of your lesson assignments, discussion summaries, exams, and materials for the group project are to be uploaded to the Dropbox. The assignments must be submitted in the appropriate folder. Your file should be named using this format: Smith_AssignmentTypeX.doc. You should also include your name in the actual document. In naming your file, you should **not** use any spaces or any special characters (# \$ % & =); an underscore character is okay. All your assignments need to be submitted as a Microsoft Word file (*.doc or *.docx) or in Rich Text format (*.rtf).

Grading Policy

During the semester, you will turn in Lab Activities, participate in Discussions, write Discussion Summaries, take Exams, and work on a Group Project. These assignments have a total of 1,120 points associated with them. The total point distribution associated with each graded component of the course is provided below.

Point Distribution

Task	Total Points	Percent of Final Grade
Exams	350	31.25
Lab Activities	350	31.25
Discussions	140	12.5
Discussion Summaries	140	12.5
Group Project	140	12.5

All work must be turned in on time or a grade of zero will be given for the task. Exceptions to this policy will be considered only for medical reasons or family emergencies and will be done so on a case-by-case basis. To obtain an extension for a due date, written and verifiable evidence must be provided. For the group project, the failure of one member of the group to turn in his or her portion of the assignment will not penalize or jeopardize the grades received by the other group members. Cases of cheating and plagiarism on any course work will be handled on an individual basis based on the guidelines set forth by the University of Wisconsin Colleges.

Grading Scale

Your final grade will be based on a percentage of the total points available and will be assigned according to the grade scale given below.

Grade	Percent of Total Points Available	Grade Points
A	93-100	4.00
A-	90-92	3.67
B+	88-89	3.33
B	84-87	3.00
B-	80-83	2.67
C+	78-79	2.33
C	74-77	2.00
C-	70-73	1.67
D+	68-69	1.33
D	64-67	1.00
D-	60-63	0.67
F	<60	0.00

Lab Activities

You will have fourteen Lab Activities relating to material covered in the online readings or to websites to which we will apply the material we are considering. Each lab assignment has a value of 25 points. Lab Activities must be submitted in a MS Word Document (*.doc or *.docx) or in a Rich Text Format (*.rtf) and uploaded to the appropriate folder in the Dropbox.

Lab Activity Grading Rubric

For your Lab Activities, you will be graded according to the rubric provided below.

Competency	Points	Percent
Exemplary	22.5 to 25.0	90 to 100
Above typical	20.0 to 22.4	80 to 89
Typical	17.5 to 19.9	70 to 79
Below typical	15.0 to 17.4	60 to 69
Non-responsive	0.0 to 14.9	0 to 59

Lab Activities Competency Definitions

Exemplary

- Lab Activity is complete and correct.
- Provides thorough, balanced relevant support of the topic using appropriate resources.
- Very neatly presented.

Above typical

- Lab Activity is complete and generally correct.
- Generally provides credible support using appropriate resources.
- Neatly presented.

Typical

- Lab Activity is mostly complete and attempts to address the topic and purpose of the lab.
- Support for topic using appropriate resources is limited.
- Presentation and organization needs improvement.

Below typical

- Lab Activity is attempted but includes little or no support.
- Weak effort and presentation.

Non-responsive

- Lab Activity is not submitted by the due date or fails to meet the minimum expectations of "Below Typical" effort.

Discussions

For each lesson we will have an online discussion. You will typically be working in small groups. The online discussions pertain to specific topics covered in each lesson. Topics and specific expectations for each online discussion are posted with the material for that lesson. You will submit your comments in the appropriate discussion forum in the **Discussions** area.

It is important that you participate in the online discussions for each lesson because this is where we exchange some of our ideas. Your contributions to each lesson's discussion are worth 10 points for a total of 140 points for the semester.

Lesson Discussion Grading Rubric:

For your lesson discussion postings, you will be graded according to the rubric provided below.

Competency	Points	Percent
Exemplary	9.0 to 10.0	90 to 100
Above typical	8.0 to 8.9	80 to 89
Typical	7.0 to 7.9	70 to 79
Below typical	6.0 to 6.9	60 to 69
Non-responsive	0.0 to 5.9	0 to 59

Discussions Competency Definitions

Exemplary

- Information clearly relates to the main topic and adds new concepts and information. It includes several supporting details or examples.
- Consistently provides resources even if not required.
- Enhances the critical thinking process consistently through premise reflection and difference of questioning self or others.
- Encourages and facilitates interaction among the members of the group.

- Both professional vocabulary and writing style are used consistently throughout the discussion.

Above typical

- Information clearly relates to the main topic.
- Occasionally provides resources even if not required.
- Critical thinking and premise reflection is demonstrated in the discussion by the individual only.
- Responds to other members of the group.
- Both professional vocabulary and writing style are used consistently throughout the discussion.

Typical

- Information clearly relates to the main topic. No details or examples are given.
- Provides resources when requested.
- Responds to questions but does not engage in premise reflection.
- Rarely interacts or responds to other members of the group.
- Both professional vocabulary and writing style are used occasionally throughout the discussion.

Below typical

- Information has little or nothing to do with the main topic or simply relates to the main topic.
- Does not provide resources even when requested.
- Does not respond to questions posed by the instructor.
- Responds to the instructor only.
- Professional vocabulary and writing style is not used.

Non-responsive

Posting not submitted to the discussion forum by the due date or fails to meet the minimum expectations of "Below Typical" effort.

Discussion Summaries

After each discussion has concluded, you will be required to submit a written summary of the discussion. You can earn a maximum of 10 points for each Discussion Summary for a total of 140 points. Discussion Summaries are to be uploaded to the Dropbox as either an MS Word Document (*.doc or *.docx) or in a Rich Text Format (*.rtf). All Discussion Summaries must be

submitted by the due date listed in the Course Calendar for you to receive credit for the assignment.

To write a Discussion Summary, you will read through all of the postings for the lesson's discussion. Prepare a generic summary of the discussion by listing the key points that were raised. Include any points from your own posting, the contributions of your classmates, and my responses that seem appropriate. Your generic summary does not have to detail every point raised in the discussion, but it should emphasize the major themes and concepts mentioned. You need to provide enough information in your summary to demonstrate that you have a clear understanding of the discussion topic. In order to emphasize specific points, please feel free to cite the postings of your classmates or my responses. Your Discussion Summary must be a minimum of 300 words in length.

Lesson Discussion Summary Grading Rubric:

For your Discussion Summaries, you will be graded according to the rubric provided below.

Competency	Points	Percent
Exemplary	9.0 to 10.0	90 to 100
Above typical	8.0 to 8.9	80 to 89
Typical	7.0 to 7.9	70 to 79
Below typical	6.0 to 6.9	60 to 69
Non-responsive	0.0 to 5.9	0 to 59

Discussion Summaries Competency Definitions

Exemplary

- Work done to a professional level of standards.
- Shows great consideration of the discussion topic under consideration.
- Summary of the main ideas of the discussion is complete.

Above typical

- Work is very competent.
- Shows good consideration of the discussion topic under consideration.
- Summary of the main ideas of the discussion are mainly complete.

Typical

- Work is moderately competent.
- Some consideration of the discussion topic under consideration.
- Summary of the main ideas of the discussion is incomplete.

Below typical

- Work shows little or no application of subject knowledge.
- Summary of the main ideas of the discussion are generally missing.

Non-responsive

- Discussion Summary is not submitted by the due date or fails to meet the minimum expectations of "Below Typical" effort.

Exams

Exam Details

There will be four exams during the semester, including the final. The exams have a total value of 350 points, which represents 25% of your total grade.

The value of each exam and the material that you will be tested on is provided below:

Exam	Material Covered	Value
Exam 1	Unit 1: Lessons 1 and 2	50 points
Exam 2	Unit 2: Lessons 3 through 7	125 points
Exam 3	Unit 3: Lessons 8 and 9	50 points
Exam 4	Unit 4: Lessons 10 through 14	125 points

The exams are open book/open note tests. You may consult any of the online materials that we have used in the course to answer the questions. However, you may not consult with each other. You may work on the exam as long as you wish, provided it is turned in by the due date. Since the exams are open-book/open-note tests, proctors are not required. Exams must be submitted in an MS Word Document (*.doc or *.docx) or in a Rich Text Format (*.rtf) and uploaded to the appropriate folder in the Dropbox.

All exams must be turned in by the due date. Late exams will not be accepted.

Exam Grading Rubric:

Your exams will be graded according to the rubric provided below.

Competency	Percent
Exemplary	90 to 100
Above typical	80 to 89
Typical	70 to 79
Below typical	60 to 69
Non-responsive	0 to 59

Exam Competency Definitions

Exemplary

- Answers specific questions that are asked.
- Incorporates pertinent and detailed information from both class discussion and assigned readings (whenever applicable), providing needed references.
- Maintains focus and avoids being sidetracked by tangents.
- Presents information clearly and concisely and in an organized manner.
- Does much more than merely restate the questions and offer brief answers.
- Avoids distracting grammar or spelling problems.

Above typical

- Answers specific questions that are asked, but not to the degree of an exemplary exam.
- Incorporates some information from class discussion and assigned readings, providing some necessary evidence, but less thoroughly or relevantly than an exemplary exam.
- Usually maintains focus, but may occasionally digress from the specific topics.
- Presents information fairly clearly and concisely, and may have minor organizational problems.
- Does more than merely restate the questions and offer brief answers.
- May contain a few distracting grammar or spelling problems.

Typical

- Addresses the questions asked in part, but does not relate directly to the questions or does not understand all required elements.
- Does not adequately incorporate information from class discussions and assigned readings, and may rely on unsupported statements or generalities.
- Sometimes strays from the specific topic of questions (more often than an above typical exam).
- Presents information in a manner that is sometimes unclear or has significant organizational problems.
- May merely restate questions and offer brief, undeveloped answers.

- May contain a few or significant grammar or spelling problems.

Below typical

- Does not directly answer the specific questions asked.
- Does not incorporate information from class discussions and assigned readings, or does so minimally or irrelevantly.
- Substantially digresses from a specific topic.
- Has specific problems with clarity, concision, and organization, making the information presented difficult for the reader to understand.
- May restate the questions and offer an irrelevant or underdeveloped response.
- May contain substantial grammar or spelling problems that muddle the information presented.

Non-responsive

- Exam not submitted by the due date or does not answer questions in any way.
- Does not incorporate information from pertinent class discussion or assigned readings.
- Provides no information that can be understood or related to specific topics.
- May lack any recognizable organization.
- May contain enough distracting grammar or spelling problems to make answers substantially incomprehensible.

Projects

During the final weeks of the semester, you will participate in a Group Project. The Group Project has a value of 140 points and is designed so that you will have to call upon the information that you have mastered over the semester. Specific details regarding how group leaders and group members will be graded are provided with the directions for the Group Project. These directions will be available in the Discussions area. All postings for the collaborative discussion work must be posted to the appropriate discussion area. Written material for the Group Project must be submitted as a MS Word Document (*.doc or *.docx) or a Rich Text Format (*.rtf) document and uploaded to the appropriate folder in the Dropbox.

Group Project Grading Rubric

For your group project, you will be graded according to the rubric provided below.

Competency	Points	Percent
Exemplary	126 to 140	90 to 100
Above typical	112 to 125.9	80 to 89
Typical	98 to 111.9	70 to 79
Below typical	84 to 97.9	60 to 69

Non-responsive 0 to 83.9 0 to 59

Project Competency Definitions

Above typical

Individual Work:

- The individual work presented was accurate and answered the big question.
- The individual contributed to the group effort to good degree.

Group Work:

- Group members worked well with each other to complete the project in a timely manner.
- The presentation was interesting, creative, and addressed a wide audience.
- The overall quality of the project was very good.
- The group worked well together in organizing each step of the project from start to finish.

Typical

Individual Work:

- The individual work presented was accurate but did not answer the big question thoroughly.
- The individual contributed to the group effort to a moderate degree.

Group Work:

- Group members worked with each other to complete the project in a timely manner.
- The presentation was interesting.
- The overall quality of the project was good.
- The group worked together in organizing each step of the project from start to finish.

Below typical

Individual Work:

- The individual work presented was not accurate or did not answer the big question.
- The individual contribution to the group effort was minimal.

Group Work:

- Group members failed to work together and present the project in a timely manner.

- The presentation lacked interest and creativity.
- The overall quality of the project was poor and many parts of the project were not well put together.
- The group did not work well together in organizing each step of the project from start to finish.

Non-responsive

- Individual fails to participate in the group project by failing to contribute individual work and/or contributing to the group effort.

Exemplary

Individual Work:

- The individual work presented was accurate, well researched and answered the big question thoroughly.
- The individual contributed to the group effort to a high degree.

Group Work:

- Group members worked very well together to complete the project in a timely manner.
- The presentation was interesting, creative, and addressed a wide audience.
- The overall quality of the project was excellent and each part of the project was well put together.
- The group worked very well together in organizing each step of the project from start to finish.