

# GEOG 170: Natural Disasters

## Spring 2023 Syllabus

**Important Note:** This syllabus, along with course assignments and due dates, are subject to change. It is the student's responsibility to check Canvas for corrections or updates to the syllabus. Any changes will be clearly noted in a course announcement or through email.

### Course Information

#### Instructor Information

Instructor: **Lisa Siewert**

Office: **282A Wausau Campus and 212B Marshfield Campus**

Office Hours: In-person on Monday 11:45-12:45 at the Wausau Campus and Wednesday 11:45-12:45 at the Marshfield Campus. Use [this link](#) to schedule an appointment with me. You will be able to schedule a time that works with both of our schedules and a Zoom meeting will automatically be added to my calendar and in your calendar. Please schedule at least 4 hours in advance.

E-mail: [lsiewert@uwsp.edu](mailto:lsiewert@uwsp.edu) This is my preferred method of communication.

#### Course Information

**Course Description:** 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.

**Credits:** 4 credits

**Prerequisite:** none

#### Expected Instructor Response Times

- I will attempt to respond to student emails within 24 hours.
  - \*\*\*If you have a general course question (not confidential or personal in nature), please post it to the Course Q&A Discussion Forum found on the course homepage. I will post answers to all general questions there so that all students can view them. Students are encouraged to answer each other's questions too.
- I will attempt to reply to and assess student discussion posts within 48 hours of discussions closing.
- I will attempt to grade labs and exams within 72 hours of the due date.

#### Textbook & Course Materials

**Required Text:** Natural Disasters 11<sup>th</sup> edition by Abbott ISBN: 9781260504248. This book is available for text rental through UWSP bookstore.

## Course Learning Outcomes

1. Describe how the tectonic motion of Earth's lithosphere leads to geologic disasters such as volcanoes, earthquakes, landslides, and tsunamis.
2. Explain how global atmospheric circulation and Earth's hydrologic cycle create weather-related disasters such as hurricanes, floods, and droughts.
3. Analyze specific geologic risk factors that can be used to determine the probability of natural disasters occurring in a specific region.
4. Identify how geologic disasters impact our everyday lives

You will meet the outcomes listed above through a combination of the following activities in this course:

- **Lab:** The lab activities will be conducted 100% online. You will submit worksheets for your labs on Canvas.
- **Reading Quizzes:** Every week there will be at least one reading quiz that covers the topics presented in lecture and the readings assigned that week. They will be 10-20 questions long and you will have two attempts on each quiz.
- **Midterm Exams:** There will be three midterm exams that cover the topics presented in this course. The exam is designed to be completed within the 50-minute lecture period. A study guide with potential short-answer questions will be provided.
- **Final Exam:** There will be a cumulative final exam held during our scheduled final exam period. The final exam is divided into three sections with section 1 corresponding to Exam 1, section 2 corresponding to Exam 2, and section 3 corresponding to Exam 3. You can replace one of your midterm exam scores by scoring a higher percentage on that section. (If you improve on several sections, I will replace the one that helps your grade improve the most. If you don't score a higher percentage on any of the sections—your midterm exam scores will NOT be replaced by a lower percentage.)

## Student Expectations

In this course you will be expected to complete the following types of tasks.

- attend lectures in-person, take notes, and ask questions
- review the lesson learning materials
- communicate via email
- complete basic internet searches
- download and upload documents to Canvas
- prepare for exams by understanding how to answer the study guide questions
- participate in asynchronous online discussions

## Course Structure

This course will be delivered in person in via twice weekly lectures and one weekly lab activity. The lab may be completed in-person in the computer lab or on your own online. Learning materials and some assessments are accessed and completed online through the course management system, Canvas. You will use your UWSP account to login to the course from the [Canvas Login Page](#). If you have not activated your UWSP account, please visit the [Manage Your Account](#) page to do so.

## Technology

### Course Technology Requirements

- View this website to see [minimum recommended computer and internet configurations for Canvas](#).

### UWSP Technology Support

- Visit with a [Student Technology Tutor](#)
- Seek assistance from the [IT Service Desk](#) (Formerly HELP Desk)
  - o IT Service Desk Phone: 715-346-4357 (HELP)
  - o IT Service Desk Email: [techhelp@uwsp.edu](mailto:techhelp@uwsp.edu)

## Grading Policies

### Graded Course Activities

Click the **Assignments** link in Canvas to access assignment listing, categories and weights as applicable. Click the **Syllabus** link to see a chronological listing of assignments. Click the **Grades** link to see current grades.

### Participation

Students are expected to participate in all online activities as listed on the course calendar.

### Complete Assignments

**All assignments for this course will be submitted electronically through Canvas unless otherwise instructed.** Assignments must be submitted by the given deadline or special permission must be requested from instructor *before the due date*. Extensions will not be given beyond the next assignment except under extreme circumstances.

All discussion assignments must be completed by the assignment due date and time. Late or missing discussion assignments will affect the student's grade.

### Late Work Policy

Be sure to pay close attention to deadlines—there will be no make-up assignments or quizzes. Late work will be accepted with a penalty of 2% loss in overall points for each day late, with a minimum score of 10% for very late assignments.

### Viewing Grades in Canvas

Points you receive for graded activities will be posted to Grades. Click on the Grades link to view your points.

Your instructor will update the online grades each time a grading session has been complete—typically 3 days following the due date of an assignment. You will see a visual indication of new grades posted on your Canvas home page under the link to this course.

### Letter Grade Assignment

Final grades assigned for this course will be based on the percentage of total points earned and are assigned as follows:

A	94-100%	B	84-87%	C	74-77%	D	64-67%
A-	90-93%	B-	80-83%	C-	70-73%	F	< 64%
B+	87-89%	C+	77-79%	D+	67-69%		

## Course Policies

### Build Rapport

If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let your instructor know as early as possible. As you will find, building rapport and effective relationships are key to becoming an effective professional. Make sure that you are proactive in informing your instructor when difficulties arise during the semester so that we can help you find a solution.

### Understand When You May Drop This Course

It is the student's responsibility to understand when they need to consider unenrolling from a course. Refer to the UWSP [Academic Calendar](#) for dates and deadlines for registration. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons includes: (1) documented and significant change in work hours, leaving student unable to attend class, or (2) documented and severe physical/mental illness/injury to the student or student's family.

### Incomplete Policy

Under emergency/special circumstances, students may petition for an incomplete grade. An incomplete will only be assigned if 50% of the course assignments have been completed by the end of the semester. All incomplete course assignments must be completed within a semester after the incomplete was assigned.

### Inform Your Instructor of Any Accommodations Needed

If you have a documented disability and verification from the [Disability and Assistive Technology Center](#) and wish to discuss academic accommodations, please contact your instructor as soon as possible. It is the student's responsibility to provide documentation of disability to Disability Services and meet with a Disability Services counselor to request special accommodation *before* classes start.

The Disability and Assistive Technology Center is located in 609 Albertson Hall and can be contacted by phone at (715) 346-3365 (Voice) (715) 346-3362 (TDD only) or via email at [datctr@uwsp.edu](mailto:datctr@uwsp.edu).

### Statement of Policy

UW-Stevens Point will modify academic program requirements as necessary to ensure that they do not discriminate against qualified applicants or students with disabilities. The modifications should not affect the substance of educational programs or compromise academic standards; nor should they intrude upon academic freedom. Examinations or other procedures used for evaluating students' academic achievements may be adapted. The results of such evaluation must demonstrate the student's achievement in the academic activity, rather than describe his/her disability.

*If modifications are required due to a disability, please inform the instructor and contact the Disability and Assistive Technology Center in 609 ALB, or (715) 346-3365.*

### Commit to Integrity

As a student in this course (and at this university) you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this class and also integrity in your behavior in and out of the classroom.

### UWSP Academic Honesty Policy & Procedures

#### Student Academic Disciplinary Procedures

UWSP 14.01 Statement of principles

The board of regents, administrators, faculty, academic staff and students of the university of Wisconsin system believe that academic honesty and integrity are fundamental to the mission of higher

education and of the university of Wisconsin system. The university has a responsibility to promote academic honesty and integrity and to develop procedures to deal effectively with instances of academic dishonesty. Students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect of others' academic endeavors. Students who violate these standards must be confronted and must accept the consequences of their actions. UWSP 14.03 Academic misconduct subject to disciplinary action.

- (1) Academic misconduct is an act in which a student:
- (a) Seeks to claim credit for the work or efforts of another without authorization or citation;
  - (b) Uses unauthorized materials or fabricated data in any academic exercise;
  - (c) Forges or falsifies academic documents or records;
  - (d) Intentionally impedes or damages the academic work of others;
  - (e) Engages in conduct aimed at making false representation of a student's academic performance; or
  - (f) Assists other students in any of these acts.

(2) Examples of academic misconduct include, but are not limited to: cheating on an examination; collaborating with others in work to be presented, contrary to the stated rules of the course; submitting a paper or assignment as one's own work when a part or all of the paper or assignment is the work of another; submitting a paper or assignment that contains ideas or research of others without appropriately identifying the sources of those ideas; stealing examinations or course materials; submitting, if contrary to the rules of a course, work previously presented in another course; tampering with the laboratory experiment or computer program of another student; knowingly and intentionally assisting another student in any of the above, including assistance in an arrangement whereby any work, classroom performance, examination or other activity is submitted or performed by a person other than the student under whose name the work is submitted or performed.

### Religious Beliefs

Relief from any academic requirement due to religious beliefs will be accommodated according to UWS 22.03, with notification within the first three weeks of class.

### Topic Outline

**Important Note:** Refer to the Canvas course home page for pertinent information. Activity and assignment details will be explained in detail within each week's corresponding Module. As tasks come due, they will appear in your "to do" list. If you have any questions, please contact your instructor.

Week	Date	Instructor Location	Topic	Reading
1	Jan 23	Wausau	Introduction to course & energy flows	Syllabus; Prologue
	Jan 25	Marshfield	Human Fatalities & Economic Losses	Chapter 1
	<b>Jan 27</b>	<b>NO CLASS</b>		
2	Jan 30	Wausau	Human Population & Carrying Capacity	Chapter 1
	Feb 1	Marshfield	Earth Layers; Internal Sources of Energy	Chapter 2
	Feb 3	Wausau	Plate Tectonics	Chapter 2
3	Feb 6	Wausau	Plate Tectonics	Chapter 2
	Feb 8	Marshfield	Understanding Earthquakes; Types of Faults	Chapter 3
	Feb 10	Wausau	Seismic Waves; Magnitude	Chapter 3
4	Feb 13	Wausau	EQ Intensity & Preparation	Chapter 3
	Feb 15	Marshfield	Divergent & Transform Plate EQ	Chapter 4
	Feb 17	Wausau	Convergent Plate EQ	Chapter 4

5	Feb 20	Wausau	Earthquakes in the US	Chapter 5
	Feb 22	Marshfield	Catch-up/Exam 1 review	
	<b>Feb 24</b>	<b>Wausau</b>	<b>Exam 1</b>	
6	Feb 27	Wausau	Chemical Composition of Magmas; How a Volcano Erupts	Chapter 6
	Mar 1	Marshfield	The Three Vs of Volcanology	Chapter 6
	Mar 3	Wausau	Volcano case histories & processes	Chapter 7
7	Mar 6	Wausau	Volcano Monitoring and Warning	Chapter 7
	Mar 8	Marshfield	Tsunami vs Wind-Caused Waves	Chapter 8
	Mar 10	Wausau	Tsunami Case Studies	Chapter 8
8	Mar 13	Wausau	Earth-Sun Interactions	Chapter 9
	Mar 15	Marshfield	Water and Heat	Chapter 9
	Mar 17	Wausau	The Atmosphere	Chapter 9
<b>Mar 20-24</b>		<b>NO CLASS – SPRING BREAK</b>		
9	Mar 27	Wausau	Winds & Global Circulation	Chapter 9
	Mar 29	Marshfield	Thunderstorms	Chapter 10
	Mar 31	Wausau	Tornadoes	Chapter 10
10	Apr 3	Wausau	Catch-up/Exam 2 Review Day	
	<b>Apr 5</b>	<b>Marshfield</b>	<b>Exam 2</b>	
	Apr 7	Wausau	Hurricane Formation, Origin, Forecast, & Damages	Chapter 11
11	Apr 10	Wausau	Hurricane Case Studies	Chapter 11
	Apr 12	Marshfield	Climate History of Earth	Chapter 12
	Apr 14	Wausau	Climate History of Earth	Chapter 12
12	Apr 17	Wausau	21 <sup>st</sup> Century Climate Change	Chapter 12
	Apr 19	Marshfield	How Rivers and Streams Work	Chapter 13
	Apr 21	Wausau	Floods	Chapter 13
13	Apr 24	Wausau	Causes of Slope Failure	Chapter 15
	Apr 26	Marshfield	Classification of Mass Movements	Chapter 15
	Apr 28	Marshfield	Sand, Waves, & Tides	Chapter 16
14	May 1	Wausau	Coastal Control Structures	Chapter 16
	May 3	Marshfield	Impacts with Space Objects	Chapter 17
	May 5	Wausau	Large Earth Impacts	Chapter 17
15	May 8	Wausau	Catch-up/Exam Review	
	<b>May 10</b>	<b>Wausau</b>	<b>Exam 3</b>	
	May 12	Wausau	Hand back exams, Final Exam Review	
	<b>May 15</b>	<b>Wausau</b>	<b>Final Exam 10:15 AM – 12:15 PM</b>	