

DISASTERS/ENVIRONMENTAL HAZARDS

Lecture 1: TR 10-10:50; Sci B338

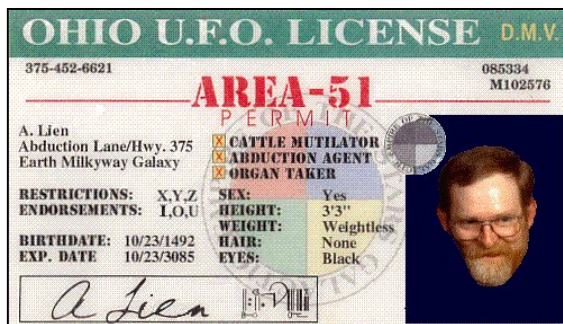
Laboratory: F9-10:50; various on-site (F2F)

Office: Science D333

Office Hours: on-line, or by appointment

e-mail: nheywood@uwsp.edu

READ AND RETAIN THIS SYLLABUS!



I stress two reciprocal themes as learning outcomes for this course:

1. hazards are a normal complement to resource exploitation, and
2. humans derive hazards from, but also impose them onto, their multiple environments.

Initially we shall survey **arrays** of phenomena that adversely affect humans during environmental interaction. In the second portion of this course we will consider the role of **individual** and **collective** perceptions ("how we think") and behavior ("how we act") at potentially harmful sites. Finally, the lab portion of the course will focus on practical application of human **organizations** to hazardous situations; this field component will emphasize search and rescue.

ELECTRONICS: Please review [Rights and Responsibilities](#) within the UWSP campus community. I adhere to it; so should you. Further, the audio-embedded PowerPoints are available for re-listening on Canvas.uwsp.edu, in the Assignments module; graphics and other materials are also available. If Canvas fails, a [back-up site](#) also exists.

ATTENDANCE: Except while learning faces and enrolling late registrations during the first week, I will not call roll at classes; that wastes time. In a class this small I quickly learn names, and will note excessive absences without comment. The continuity of your notes will document whether you have conscientiously attended.

EXAMS: There will be two topical and one exercise skills exams. These exams will become available at the appropriate date on Canvas, and you **must** submit your responses by the closing (due) date. Do not use other wireless or e-mail.

| | | |
|---------------------------|-------------------------------------|-----|
| GRADE COMPOSITION: | Exam I - (S) 03NOV..... | 30% |
| | Exam II - (S) 09DEC | 30% |
| | Field Skills Test - (T) 18DEC | 30% |
| | Final Exercise (M 15DEC 8:00) | 10% |

CLASS ID#: Add the first letter of your last name to your UWSP ID#. _____ **KNOW THIS!**

e.g. 12345678 (UWSP ID#)

+ _____ 12(Heywood)

1234568H THIS WOULD BE MY CLASS ID#

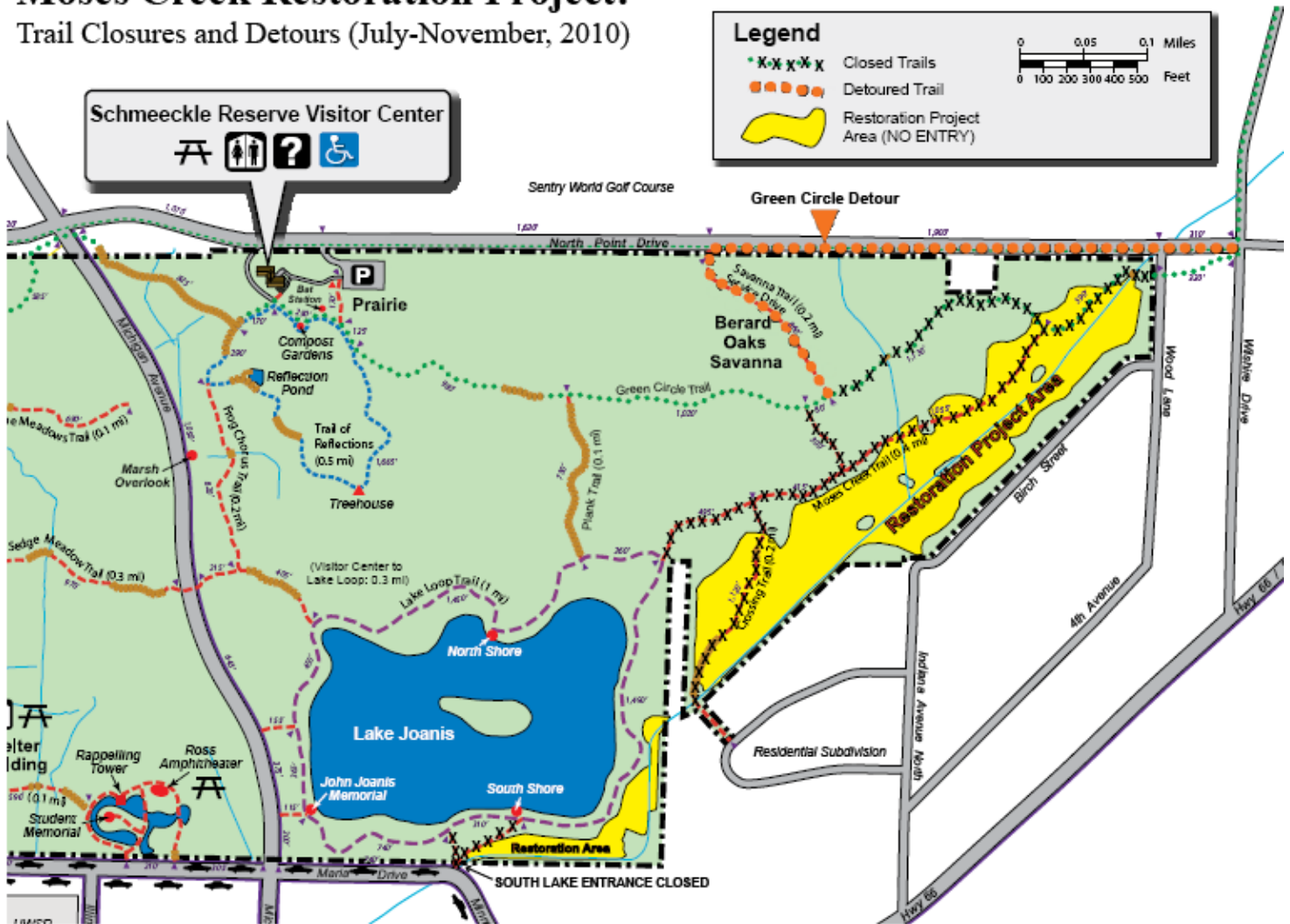
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| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |

LABORATORY: The laboratory portion of the course will focus on practical techniques following the guidelines of the National Association for Search and Rescue (NASAR). Many of these skills are equally applicable to field research, and even outdoor recreation. Search and Rescue (SAR) operations are predicated on the acronym "LAST", standing for "locate, access, stabilize, and transport"; if you think about that for a moment you should realize that this is eminently geographical in character. Lab topics include compass and GPS navigation, XMap software, UTM coordinates, communications, note-taking/custody of evidence, and SAR types. We will use historical disaster events.

| DATES | LECTURE THEMES (Tue & Thur) | Friday LAB TOPICS (event reconstructions) |
|---------------|--|--|
| 04-07SEP | Defining "Hazard" | 07SEP Grids & Compass (SS Edmund Fitzgerald) |
| 10-28SEP | Geophysical Hazards | 15SEP XMap basics (Wisconsin wildfires) |
| 02-16OCT | Technological Hazards | 21SEP XMap extended (Wisconsin tornadoes) |
| 18-28OCT | Biological Hazards | 28SEP Communications (Milwaukee <i>Cryptosporidium</i>) |
| S03NOV | EXAM I | 05OCT NO LAB (Floods; Long Island 1938 video) |
| 01-16NOV | Hazards Perception | 12OCT Search Types (Malay Airlines 370) |
| 20-30NOV | Interventions & Adjustments | 19OCT Hazard Economics (Johnstown 1889 video) |
| 04-13DEC | Collective Mitigation/Policy Responses | 26OCT Command, Legal (San Francisco 1906 video) |
| S15DEC | EXAM II | 02-30NOV Field Searches (Extraterrestrial Impacts) |

Moses Creek Restoration Project:

Trail Closures and Detours (July-November, 2010)



Yes, it has been a decade. Nonetheless, I still do not want us to disturb the dedicated restoration work of our Schmeckle Reserve colleagues. Therefore, **the area in yellow above is strictly off-limits** throughout the semester. This should not affect our field excises.

For those of you doing this course as **distance education**, the F2F field activities will instead become “Command Center” tabletop exercises. We will provide you with our ground team data, and you shall reconstruct where we were, when, and what we found. This closely emulates how you would help coordinate an actual search operation.

In case any of you (either F2F or distance education) are wondering, our field task will be to find and properly secure approximately 30 groundwater monitoring wells scattered throughout Schmeckle Reserve. These are real, having been installed by a **1986** College of Natural Resources graduate student. *These are not, however, very easy to find!*



Please consider the environment - do you *really* need to print this? Can't we leave knowing our great-grandchildren might see a forest?