Syllabus: ATMOS 1010-001 Severe and Unusual Weather - Fall 2018

Section Instructors:

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Direct Link to Canvas: https://utah.instructure.com/courses/511392

Course Description: Severe and Unusual Weather is a three-credit, introductory course in atmospheric sciences. The only prerequisite to this course is an interest in learning about the atmosphere in which we live and a willingness to participate in class discussions and assignments. This descriptive course requires only the most basic math skills and will use very few equations. The objective of this class is to develop an understanding of the fundamental laws of nature and apply them to the atmosphere, and gain a greater awareness of weather safety and where to obtain weather information. Scientific knowledge continually evolves. Thus, we will focus on understanding the scientific process and developing critical thinking skills required to be a good consumer of scientific information.

Learning Objectives: After completion of this course, you should be able to: discuss societal impacts of weather including local air quality and severe storms; relate how to be safe out of doors; apply basic math concepts to the physical world; know where to go for current and past weather information; have some familiarity with how environmental instrumentation works; define some of the causes for weather that may affect you during all seasons.

Prerequisites: None

Class Textbook: A copy of the class textbook is on reserve at the Marriott Library. Rauber, R.M., J. E. Walsh, and D. J. Charlevoix, Severe & Hazardous Weather: An Introduction to High Impact Meteorology (5th Edition), Kendall/Hunt Publishing Company, 2017. [Note: The 3rd or 4th editions of the textbook are acceptable as well.]

Policies

- Students must be able to apply basic math skills.
- Students must take exams as specified in this syllabus with exceptions governed by University Policy.
- Plagiarizing, copying, cheating or otherwise misrepresenting one’s work will not be tolerated and will be dealt with following University Policy. Do not break the scientific code of honor!
- Attendance is not taken, but missing just one class may result in a lack of understanding for future classes. Please arrive on time and stay for the entire class period.
You are expected to participate in class and pay attention: use of cell phones and mobile devices is discouraged except when they are used in the context of the class to access weather information or other course content.

Please be respectful to others both in the class and online

Class policies and requirements may be modified during the semester as necessary, especially if unusually high rates of student absenteeism arise due to illness.

**ADA Accommodations:** The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. If you need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangement for accommodations. All written information in this course can be made available in alternative format with prior notification to the Center for Disability Services. (http://www.hr.utah.edu/oeo/ada/guide/faculty/)

**Grading:** Lowest of 4 exam grades will be dropped. There are no make-up exams after the scheduled exam periods. With petition by the student at least two days in advance and instructor approval, a student may be able to schedule taking one of the first three exams early. **However,** the last exam during finals week is offered only in the regularly scheduled final exam period, Thursday, December 13, 10:30 am – 12:30 pm. If you take the first three exams, you do not need to take the fourth if you are satisfied with your grade. Do not schedule travel prior to December 13 if you wish to improve your grade by taking the fourth exam.

The three exams are worth 60% of total grade while assignments (in-class 15%; online quizzes 25%) are worth 40% of the total grade. Final grades are based on the following scale:

- > 90 % guarantees an A or A-
- > 80 % guarantees a B+, B, or B-
- > 70 % guarantees a C+, C, or C-
- > 60 % guarantees a D+, D, or D-
- < 60 % may result in an E

Cut-off points for the specific grades are identified to define reasonable distribution of grades

**Course Modules:** There will be 4 modules during the semester and each module block will last 3-4 weeks:

1. Module 1: The basics: How we observe our environment, properties of the atmosphere.
2. Module 2: Summer thunderstorms, hurricanes, and tornadoes: Lightning is the leading cause of weather-related deaths in Intermountain Region.
4. Module 4: Clouds, snow, avalanches, and air quality: being safe in the winter.
Each module will contain: Required reading assignments, at least 2 canvas online quizzes or in class required assignments, a practice exam, in-class review session, 1 exam (final exam is not comprehensive).

Important Dates

- Class begins Aug 20
- Labor day Sept 3 (No class)
- Module 1: Aug 20-Sept 12
- Module 1 review: Sept 12
- Module 1 exam: Sept 17
- Module 2: Sept 19- Oct 17
- Fall break Oct 8-12
- Module 2 review: Oct 17
- Module 2 exam: Oct 22
- Module 3: Oct 24 –Nov 12
- Module 3 review: Nov 12
- Module 3 exam: Nov 14
- Module 4: Nov 19 – Dec 5
- Module 4 review: Dec 5
- Module 4 exam: Thursday, December 13, 10:30 am – 12:30 pm

Canvas and Email: This course depends on students using Canvas to access class content, submit assignments, participate in online discussions, etc. Students not familiar with Canvas are expected to contact support at the TACC classhelp@utah.edu or call 585-0065 immediately.

General questions and comments will get answered fastest via email. When a personal problem arises, send emails (erik.crosman@utah.edu; taylor.mccorkle@utah.edu). Be responsible and proactive. Email prior to and during a personal situation is much easier for us to respond to than expecting us to accommodate your situation after the fact.

Note: This syllabus is not a binding legal contract. It may be modified by the instructor when students are given reasonable notice of the modification.