

Practical Meteorology, GES3200 & ENSC3200

Instructor: Brandon Vogt (bvogt@uccs.edu) **Office:** COH 2011

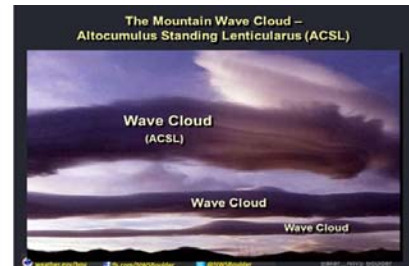
Office Hours: After class each day

Class Meets: M-F May 28 - June 7, 2019, 9:25 AM - 3:35 PM, COH 329

MasteringMeteorology Course ID: **MGEOGVOGT5239906**

Course-Related Websites:

1. Syllabus, schedule, PowerPoints, labs, readings:
<https://academics.uccs.edu/bvogt/courses/ges3200/>
2. Web-based quizzes, supplementary materials / learning activities from textbook publisher:
<http://www.masteringmeteorology.com> (requires textbook or e-book purchase)
3. Canvas (grades and attendance)
<https://canvas.uccs.edu/>



The course: *Practical Meteorology* covers weather and meteorological phenomena. Major topics include radiation balance, atmosphere structure, air masses and fronts, clouds, precipitation, storm / supercell structure, mesoscale systems, weather map analysis, forecasting, mountain weather, snow and snowpack processes, severe weather, weather hazards, lightning process, and remote sensing technologies in meteorology. Occasionally, you will watch CoCoRaHS Webinars, complete COMET MetEd modules, and hear from guest speakers. Brandon elaborates on interactions between topography (mountains) and weather, with a focus on Colorado and the unique and often extreme weather in the Colorado Front Range Region. Field trips may be required. Approved as LAS Natural Science area requirement.

Caution: Brandon is a genuine weather junkie and gets very excited about weather.

Why? Weather affects life on Earth in many very important ways; directly (e.g., flash floods, temperature) and indirectly (e.g., wildland fires, food shortages). Brandon sincerely hopes that this introductory course instills a deep appreciation of the atmosphere including its complexity, capriciousness, power, serenity, sensitivity, and profound beauty. Brandon also hopes that one or two students in the class will recognize the challenges and unknowns within the discipline, and will go on to become climatologists or meteorologists.

Textbook: **REQUIRED TO PASS THE COURSE in hard-copy or ebook:** Lutgens, Tarbuck, Herman & Tasa. 2019. *The Atmosphere: An Introduction to Meteorology* (MasteringMeteorology Series), 14th Ed. **STUDENTS MUST GAIN ACCESS TO THE MASTERINGMETEOROLOGY.COM portion of the text.**
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Grading: The sum of these items = 100 points (or 100%)

2 Exams - Midterm & Final: 48% (24% each)

10 Weekly Quizzes: 40% (4% each)

4 Labs: 12% (3% each)

- **Exams:** Two exams are given - a midterm and a final. Each covers one-half of the course content. Both exams include a combination of multiple choice, matching, true-false, short answer, and image and/or map-based interpretation. There are no make-up exams and students cannot take an exam early or late - no exceptions. If missed, an exam will count as a 0.
- **Daily Quizzes:** Most days, an online quiz is assigned that must be taken by midnight the day the quiz is assigned. Each quiz covers the material presented in class that day: a book chapter or chapters, a guest lecturer's presentation, combined with any material provided by Brandon (some content in the latter two are not covered in textbook). Quizzes are available (only) on the MasteringMeteorology.com site, consist of 20 questions, is open book / open note, is available to complete ONLY between the end of class (3:35 pm) and midnight the night of class, and has no time limit (other than midnight deadline). Quizzes must be completed individually. Quiz scores automatically populate in your MasteringMeteorology.com 'Gradebook' which is automatically populated in Canvas.
- **Labs:** Lab specifics are discussed in class the day the lab is assigned. Students will usually not complete the lab exercise during class time. Some labs will be distributed as hard copies; some will be completed online using UCAR COMET MetEd free online lessons (<https://www.meted.ucar.edu>). If a lab is turned in after specified due date (usually the next class meeting), no credit is awarded.
- **Participation:** Attendance, and active, regular class participation is required. Attendance is taken each class period. - **5%** for each unexcused absence (can't pass class with more than two).

Field trips: Except for summer school courses, field trips are required unless they conflict with work/ family/ health/ or other relevant concerns. Field trips will likely occur on Fridays. Specific dates and times will be posted on the class website.

Readings: Readings, including chapters from required textbook, chapters from other books, websites, news stories, and various journal articles, will be assigned. Readings not in your textbook will be downloadable via Brandon's class website and/or Canvas. Brandon expects that all students read all readings carefully. Readings are due before the class in which they are discussed.

PowerPoint presentations: Most lectures are outlined with PowerPoint presentations. PowerPoints are available on Brandon's class website and/or Canvas the day of class.

Participation / texting / sleeping / headphones / arriving late / missing class: The use of laptops and other devices for taking notes is quite appropriate with Brandon's permission. Phones must be silenced and put away during class. Texting and reading texts / email / Facebook posts during class time distracts Brandon and other students. Using these devices for entertainment purposes, texting, falling asleep, and/or wearing headphones will result in the loss of 10% of final course grade. **For each class missed (w/out dr's note), final course grade is lowered by 5%. Students who are regularly late and / or miss more than two classes (w/out dr's note) will fail the course.**

Academic expectations: Plagiarizing, using sources without documentation, cheating, fabrication and falsification, multiple submission, and misuse of academic materials represent intellectual theft and violate UCCS's Academic Honor Code. Though Brandon encourages students to work together and talk through issues, all final work (**INCLUDING THE WEB-BASED CHAPTER QUIZZES**) must be that of the individual student. Cheating and/or plagiarizing will lead to an F in the course. For more information, see UCCS' current student policies on academic principles and academic dishonesty.

Students with disabilities: Students with disabilities who qualify for academic accommodations must provide a letter from Disability Services (DS) and discuss specific needs with me during the first two weeks of class. The Disability Services Office is located in Main Hall # 105, (719) 255-3354.

Military students: If you are a military student with the potential of being called to military service and/or

training during the semester, you are encouraged to contact Brandon no later than the second week of class to discuss the class attendance policy. For more info., visit: <http://www.uccs.edu/~military/>

Classroom code of conduct: UCCS has established a code of conduct and classroom behavior policy to maintain the general welfare of the University community. UCCS strives to make the campus community a place of study, work, and residence where people are treated with civility, respect, and courtesy.

Details on Pyramid Exam Test Format: In a pyramid exam, students take the same exam twice during a class period: First, individually, closed notes, closed books, and without the use of any wireless devices (Part 1). Part 1 is worth 80% of exam grade. After all students have turned in exams, the same exam is taken in small groups (Part 2), also closed notes, etc. During Part 2, students can freely talk with anyone in the room (except the instructor) to complete the exam. Part 2 is worth 20% of total exam grade. During the time between Part 1 and Part 2, students will not access any outside information (e.g., the examination period is not over until Part 2 is turned in). Grade calculation:
$$((\text{total group exam score} / 100) * 0.20) + ((\text{total individual exam score} / 100) * 0.80) * 100$$

The objective of the pyramid exam is for students to know and understand the answers to the exam questions at the end of the testing period. While taking the exam in groups, students are encouraged to argue, debate, and to be forceful when a correct answer is known.: Part 1, the individual, closed-note and closed-book portion of the exam, is worth 80% of the total exam grade. *The Pyramid Exam format used in this course was developed by Dr. Barbara Munn at Sacramento State.*



Some of my favorite weather-related photos. I took this series of photos on the west side of Rocky Mountain National Park (looking east) July 8, 2014. There was a monster storm not too far south of Estes Park that back-built up the eastern side of the Front Range. Some of the outflow (the low clouds) that was pushing west crested the Continental Divide and just rolled along. The sun setting behind me lit up the westward faces of the clouds and created tremendous depth from the lodgepole pines in the foreground to the more distant cumulonimbus. AMAZING! Every hour of every day of the year, photographic moments like this pop up across our Colorful Colorado.