



GEOL 1447.101IN

Meteorology

Spring 2022

100% Online

Instructor Information:

Patrick Blood, e-mail: pblood@com.edu, mobile phone: (713) 859-2021

Office Hour:

One hour per week via a Microsoft Teams video and/or chat room conference. Dates and times will vary to accommodate all student's schedules. A weekly invite will be emailed to your COM e-mail account.

Required Textbook(s):

AMS Weather Studies Student Package 2021-22 (ISBN: 978-1-944970-73-4)

The \$144 rental is recommended: <https://edubooks.ametsoc.org/WXPk-21> (Preferred Browser: Google Chrome)

Textbook Purchasing Statement:

A student attending College of the Mainland is not under any obligation to purchase the textbook and lab manual from the college-affiliated bookstore. The textbook and lab manual are also available from independent online sources.

Course Description:

Meteorology is the study of the Earth's atmosphere, weather, and climate. The comprehensive lecture and lab will provide an overview of meteorology and its related earth sciences and is intended for both the science and non-science major. This introductory atmospheric science course with complementing lab will place emphasis on physical atmospheric processes, dynamic boundary layer behavior, meteorological phenomena, and the weather's impact upon society.

The *Weather Studies* textbook will explore twelve principal themes, plus three independent themes, arranged by chapter. Themes are organized so that Earth's atmosphere emerges as an interactive system subject to physical laws. Chapter material will focus on, but not be limited to, (1) sources of weather information (2) the origin, composition and structure of the atmosphere (3) Earth's radiation budget (4) the controls of temperature and atmospheric circulation via the radiation budget (5) air pressure measurement and implications of horizontal and vertical changes in air pressure (6) humidity, saturation, and stability (7) cloud and precipitation formation and types (8) the forces governing atmospheric circulation (9) planetary-scale circulation features including oscillations (10) mid-latitude weather systems (11) thunderstorms and tornadoes (12) tropical storms and hurricanes (13) weather analysis and forecasting and (14) the aspects of climate and climate change. All chapters will have accompanying lab work through the companion *eInvestigations* lab manual (with the *RealTime Weather Portal*). These resources will provide weekly meteorology investigations that will engage the student through the real world operationally based, "hands on" use of observation, prediction, data analysis, inference, and critical thinking skills.

General Learning Outcomes and Objectives

General Learner Outcome	Core Objective
1. Critical Thinking	Develop habits of mind that allow for the appreciation of the process(es) by which scholars within various disciplines organize & evaluate data while utilizing each discipline’s methodologies to gain a better understand of the human experience.
2. Communication	Communicate ideas, express feelings, and support conclusionseffectively in written, oral and visual formats.
3. Quantitative & Empirical	Develop quantitative and empirical skills to understand, analyze and explain natural, physical, and social realms.
4. Teamwork	Consider different points of view and work inter-dependently to achieve a shared purpose or goal.

Determination of Course Grade/Detailed Grading Formula:

“Total Points Earned / Total Available Points” System

Grading Scale:

90 – 100: **A**
 80 – 89: **B**
 70 – 79: **C**
 60 – 69: **D**
 0 – 59: **F**

F_N Grading:

The F_N grade is issued in cases of *failure due to a lack of attendance*. The F_N grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities and for which the student has failed to withdraw. The issuing of the F_N grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F_N grade.

Grade Appeal Process:

Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student [catalog](#). An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.

Make-Up Policy:

Make up exams and extended deadlines will only be available to individuals that have a documented excuse for missing an assignment or exam deadline. Documented excuses include but are not limited to: A note from a physician's office or hospital with physician's letter head AND a signature, a signed form from a presiding judge indicating official jury duty, and/or a law enforcement officer-signed report from an accident showing the date and time of occurrence that demonstrates an inaccessibility to submit the required work or meet a deadline.

Basic Course Outline:

Please refer to the [Course Schedule](#) for more details.

Week	Lecture Topic	Lab Topic	Exam	Project
1	Monitoring the Weather	Air Pressure, Wind		
2	The Atmosphere	Weather Maps, Atmosphere		
3	Solar and Terrestrial Radiation	Satellites, Sunlight	1	
4	Heat, Temperature	Temperature, Air Masses		
5	Air Pressure	Vertical Air Pressure		
6	Humidity, Stability	Clouds, Rising and Sinking Air		Assigned
7	Clouds, Precipitation	Precipitation, Doppler Radar		
8	Winds	Surface and Upper Air Maps	2	
9	Spring Break	-		
10	Planetary Air Circulations	Jet Stream, El Niño		
11	Mid-Latitude Systems	Extratropical Cyclones	3	
12	Thunderstorms, Tornadoes	Thunderstorms, Tornadoes		
13	Tropical Weather Systems	Hurricanes		
14	Weather Analysis and Forecasting	Instruments, Obs, and Forecasting	4	
15	Climate (Change)	Climate		Due
16	Finals Week	-	Final	

Attendance Policy:

This is a 100% online course in both lecture and lab component. This course's attendance will be taken through the successful submittance of the weekly lab assignments. The student has a responsibility to log into the Blackboard course site at a *minimum of three times per week*. Communication with the instructor concerning scheduled absences is required. The college recognizes no excused absences other than those prescribed by law such as religious holy days and military service. Students who have not attended class or have not signed into the course by Census Day will automatically be dropped from the class. Census dates for each semester can be found under the [2021-22 Academic Calendar](#).

Student Responsibility/Class Participation Policy:

Students are expected to sign into Blackboard and fully peruse the course site during the first week of class. Please become comfortable with the Blackboard environment and this course's structure or lay out. This is a 100% online course so there will be no classroom lecture meeting nor weekly face-to-face lab interaction. I will be monitoring your progress through Blackboard, including your time logged into the course, the amount of time accessing assignments and the time spent reading any instructor posts. **All assignments must be submitted within Blackboard** with prior instructor-granted permission for e-mail submission. Note that instructor posts are *required* reading. **Technology failure is not** an excuse for late or missing work. You are responsible for meeting exam, quiz, and project deadlines and for ensuring the instructor can open your submitted files.

Communication through student e-mail:

College of the Mainland provides a free, official e-mail account to all students to ensure efficient and secure communications between you and the college. Students will be required to use their college-issued e-mail address to communicate with their instructors and all other college personnel, so it is easy to distinguish a student's e-mail from spam. The college expects that students will utilize their college e-mail addresses to send and receive communications with college personnel and that they will read e-mail on a frequent basis. To activate your student e-mail, please visit: <https://www.com.edu/its/email.html>

Classroom Online Netiquette:

The principle of the Golden Rule applies to all course conduct and ethics. Since this is a 100% online course, all correspondence will be within Blackboard or by e-mail. Please remember that the online lecture environment should be treated the same as an on-campus environment. Being an online student is inherently assuming the responsibility of following the Course Schedule and submitting any work by the deadlines specified within Blackboard. While I will usually post announcements associated with impending deadlines, the absence of an announcement does not constitute an excuse for not submitting an assignment by its deadline.

Withdrawal Policy:

A student wishing to drop the course must drop themselves as faculty cannot drop the student. Students who have not attended class or have not signed into the course by Census Day will automatically be dropped from the class. Students should speak with the instructor and/or consult with an advisor before dropping courses. Students attending college for the first time (in the fall semester of 2007 or after) may only receive six grades of a W; the Texas public college/university grade received for a dropped course after the census date. Grades of W in developmental courses or high school level courses will not count towards the six W grade limit. After six grades of W are received, students must receive letter grades of A, B, C, D or F in all subsequent courses. There are exemptions from the six-drop limit and students should consult with a Counselor/Educational Planner before they drop courses to determine if these exemptions are applicable to them. Students receiving financial aid must contact the Financial Aid Office before withdrawing from a course. The last day to withdraw from this course is: April 25th, 2022

Minimum Technical Skills:

To succeed in this online course, you should be proficient in:

1. **Blackboard** to contact your instructor and for discussions, labs, assignments, and tests. If this is your first online course, you are required to take the Online Learner Workshop (<http://edtech.com.edu/olw/>) to learn how to use Blackboard.
2. **(Outlook) E-mail** to create, send and download emails, with and without attachments. COM Blackboard and e-mail accounts are the official means of communication in this course.
3. **Word Processing, Spreadsheet and Presentation Software** to create, edit and submit word processing, spreadsheet, and presentation files.
4. **Search engines** to locate, download and install software applications, plugins, and information from the internet.

Minimum Technology Requirements:

All students taking this course are expected to have:

1. **Access to a computer.** Know the locations of on-campus computer lab locations: <http://www.com.edu/computer-labs>. In the event of technical difficulties, you may want to utilize the campus computer lab to take exams, quizzes, work on assignments, etc...
2. **Access to a reliable internet connection.** If you do not have a hard link (e.g., ethernet) internet connection, ensure your wireless connection is stable and has a strong signal, especially during testing times.
3. **Web Browser:** One of the most recent releases of either Google Chrome/Microsoft Edge. Perform the Browser Check on the Blackboard log-in page: <https://de.com.edu/>
4. **Word Processing software** such as Microsoft Office, Open Office, or Google Docs.
5. Up-to-date **browser plug-ins** such as Adobe Reader, Java, etc...
6. Ensure you have up-to-date **anti-virus software** installed and that it is active.

Academic Success & Support Services:

College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling and through Student Services. Please discuss any concerns with me or an advisor.

Counseling Statement:

Any student that is needing counseling services is requested to please contact Holly Bankston in the Student Success Center at 409-933-8520 or hbankston@com.edu. [Counseling services](#) are available in the student center for free. Appointments are strongly encouraged. However, some concerns may be addressed on a walk-in basis.

ADA Statement:

Any student with a documented disability needing academic accommodations is requested to contact Holly Bankston at 409-933-8520 or hbankston@com.edu. The Office of Services for Students with Disabilities is in the Student Success Center in the student center.

Early Alert Program:

The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are especially important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer for you to meet your academic goals.

Classroom Conduct Policy:

College of the Mainland requires that students enrolled at COM be familiar with the Standards of Student Conduct, which can be found in the on-line [Student Catalog](#). Students are expected to be familiar with and abide by the Student Code of Conduct. Any violations of the Code of Conduct will result in a referral to the Dean of Students and may result in dismissal from this class.

Academic Dishonesty / Plagiarism:

College of the Mainland students should always exhibit the utmost integrity and maintain the highest standard within their academic work. Members of the college community benefit from an open and honest educational environment. Upholding academic integrity is everyone's responsibility. The penalty for cheating, plagiarism (defined as the practice of taking someone else's work or ideas and passing them off as one's own) or any other violation will be determined by the instructor. The minimum penalty will be a zero on that assignment or exam. The student may be referred to the Office of Student Conduct for the appropriate discipline action.

Student Concerns and/or Questions:

If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, and you still have questions, then please contact Sheena Abernathy at 409-933-8330 or sabernathy@com.edu.

COVID-19 Statement (Spring 2022):

All students, faculty, and staff are expected to familiarize themselves with materials and information contained on the College of the Mainland's Coronavirus Information site at www.com.edu/coronavirus. In compliance with Governor Abbott's May 18 Executive Order, face coverings/masks will no longer be required on COM campus. Protocols and college signage are being updated. We will no longer enforce any COM protocol that requires face coverings. We continue to encourage all members of the COM community to socially distance, exercise proper hygienic measures, and get vaccinated to protect against COVID-19. Please visit www.com.edu/coronavirus for future updates.