WBUonline
School of Mathematics and Sciences

WAYLAND MISSION STATEMENT: *Wayland Baptist University exists to educate students in an academically challenging, learning-focused, and distinctively Christian environment for professional success, lifelong learning, and service to God and humankind.*

COURSE NUMBER AND TITLE: GEOL 3402 – Meteorology
TERM: Summer 2026 June 1st – July 25th
INSTRUCTOR: Hunter Green
Email: hunter.green@wayland.wbu.edu
Office Hours, Building and Location: Online (Email checked during regular business hours)

CATALOG DESCRIPTION: The composition of the atmosphere and the energy transformations which take place in the various atmospheric arenas are discussed in detail; weather forecasting and climatology.

PREREQUISITES: N/A

REQUIRED TEXTBOOK AND RESOURCE MATERIALS: The textbook is found through the WBU eTextbook Access link provided in the Blackboard course site. Lutgens, Frederick, K. et al. The Atmosphere: An Introduction to Meteorology. Available from: Wayland Baptist University, (14th Edition). Pearson Education (US), 2018.

IMPORTANT: As an 8-week term, the course is very fast paced so it is imperative to have all course materials the first week of class!

COMPUTER/SOFTWARE REQUIREMENTS: Software required includes an internet browser Safari, Chrome, or Edge (check compatibility with Blackboard link "Test Your Browser"), and a current version of Microsoft Word. A high-speed internet connection is *highly recommended* due to some large file sizes and streaming media. The use of mobile devices (i.e. cell phone or tablet) may not work for some activities. ****Note: Some weather discussions and events may be presented with various websites and links.**

IMPORTANT NOTES: *As an online course, it is vital that you have reliable access to the internet. Excuses for assignments being late due to internet reliability issues or computer failure will not be accepted.* ***The best way to avoid problems is to get assignments done early, so that if problems should arise, you can effectively deal with them prior to deadlines.***

The use of a Wayland Baptist University email account is mandatory for all correspondence in this course– this is the official means of communication between faculty and students. If you require assistance in getting this accessing your account, there is a link under "Web Resources" or contact the IT department at itsupport@wbu.edu. Email from any other email account may not receive a response. ***Note: I will respond quicker using email than through the messaging tab in Blackboard. Typically, with 48 hours.**

OUTCOME COMPETENCIES: Upon completion of the course the student will:

- Demonstrate knowledge of the tools and methods used by scientists to study the natural world
- Identify the primary elements that compose the atmosphere
- Describe the vertical structure of the atmosphere and factors affecting energy balance
- Explain how forces of motion act together to produce general circulation patterns and wind in the atmosphere
- Processes related to cloud formation and precipitation including the role of atmospheric stability
- Identify characteristics of different air masses and describe the structure of fronts and mid-latitude cyclones
- Describe the basic characteristics of thunderstorms and hurricanes and identify the hazardous phenomena associated with each

- Describe how forecasts are made and the factors that determine their accuracy.

ATTENDANCE-TIME COMMITMENT: The University expects students to make class attendance a priority. Attendance in the context of a Virtual Campus course involves logging into the Blackboard system and checking for announcements, viewing lecture materials, working on assignments, etc. on a regular basis, preferably twice a week at a minimum. Students should reserve AT LEAST twice as many hours outside of class as they spend in-class to review material and complete assignments. While virtual campus students have the benefit of flexibility in scheduling when they will review lecture and course materials, the content of this course is NOT reduced from the traditional format and will require AT LEAST the same level of effort as the in-class version of the course! Therefore, to succeed in this course, students should be prepared to invest a MINIMUM of 15 HOURS per week, with additional effort required to study for assignments or to prepare for exams.

The course is not designed as a self-paced course and will be very difficult if the student falls behind.
NOTE: If any student expects special consideration because of family, job requirements and/or taking other classes, please do not enroll in this course. To remain fair to everyone, expectations are the same for all students. It is up to each student to decide prior to enrolling if they will have adequate time to commit to the course. No excuses because of other classes or commitments will be accepted for student's failure to comply with these requirements.

STATEMENT ON PLAGIARISM AND ACADEMIC DISHONESTY: Wayland Baptist University observes a zero-tolerance policy regarding academic dishonesty. Per university policy as described in the academic catalog, all cases of academic dishonesty will be reported, and second offenses will result in suspension from the university.

DISABILITY STATEMENT: In compliance with the Americans with Disabilities Act of 1990 (ADA), it is the policy of Wayland Baptist University that no otherwise qualified person with a disability be excluded from participation in, be denied the benefits of, or be subject to discrimination under any educational program or activity in the university. The Coordinator of Counseling Services serves as the coordinator of students with a disability and should be contacted concerning accommodation requests at (806) 291-3765. Documentation of a disability must accompany any request for accommodations.

COURSE REQUIREMENTS and GRADING CRITERIA: Students will be evaluated by examinations, class assignments, discussion participation, etc. as described below.

- Homework/Lab Assignments: All homework/lab assignments will be posted as needed and are due no later than the date AND time posted on the Blackboard site. Time is based on Plainview time (Central Time Zone U.S.). Late assignments are graded as 0. Students should allow *at least* 3 hours per week to complete activities.

- Online forums/participation assignments: Several questions/discussion topics will be posted during the term. Students are expected to respond to these postings *and* to each other's responses. The topics may be current events, new discoveries, or any variety of Earth science related issues. Student responses may require some additional reading and extensive thought or maybe just asking for an opinion.

- Exams: There will be a total of 4 exams during the semester. **The lowest score of one of the first 3 exams will be automatically dropped (the 4th/final exam score cannot be dropped).** All tests are to be completed online and have specific dates for completion (to be announced). Tests not completed by that date will be graded as zero. Exams are open book; however, exams are designed to test a student's knowledge of the material and not their ability to look up questions. All exams are set to be completed within a specific amount of time. There is ample time to complete each exam provided adequate preparation. There will not be enough time to complete the exams if a student attempts to look up most questions. Exceeding the time limit will result in a deduction of points.

This course **does offer laboratory credit** and grades are strictly based on posted assignments, discussions, and exams. Additional extra credit assignments will be posted as needed throughout the semester.

NOTE: *Due to university policy (stated in the student handbook), the final exam CANNOT be administered earlier than posted dates.* The final will *only* be available Tuesday through Saturday, the final week of the term.

GRADING CRITERIA: University Grading System: A=90-100, B=80-89, C =70-79, D=60-69, F=below 60.
The final class grade is based on the points awarded during the term and divided by the total possible points of the course.

		Points
Exams	best 2 of 3 (150 pts. each)	300
Final Exam**		200
Assignments/Labs		400
Participation (discussions, etc.)		100
		1000

Students who do not participate in discussions or pass at least half of the homework assignments will automatically fail the course.

GRADE APPEAL STATEMENT: *Students shall have protection through orderly procedures against prejudices or capricious academic evaluation. A student who believes that he or she has not been held to realistic academic standards, just evaluation procedures, or appropriate grading, may appeal the final grade given in the course by using the student grade appeal process described in the Academic Catalog. Appeals may not be made for advanced placement examinations or course bypass examinations. Appeals are limited to the final course grade, which may be upheld, raised, or lowered at any stage of the appeal process. Any recommendation to lower a course grade must be submitted through the Executive Vice President/Provost to the Faculty Assembly Grade Appeals Committee for review and approval. The Faculty Assembly Grade Appeals Committee may instruct that the course grade be upheld, raised, or lowered to a more proper evaluation.*

COURSE SCHEDULE OUTLINE: (refer to "Due Dates" document at the end of this document for specific dates for all coursework and deadlines for submission).

Week #:	***Subject***
1	Atmosphere Composition and Structure, Energy and Solar Radiation
2	Temperature, Atmospheric Pressure, and Wind
3	Atmospheric Moisture, Cloud Development, Precipitation
4	Atmosphere Circulation, Pressure Distribution, Air Masses
5	Midlatitude Cyclones, Severe Weather and Thunderstorms
6	Weather Forecasting and Analysis
7	Tropical Storms and Hurricanes, Human Effects on the Atmosphere
8	Earth's Climates and Climate Changes over Time

- EXAM 1 covers weeks 1-2
- EXAM 2 covers weeks 3-4
- EXAM 3 covers weeks 5-6
- EXAM 4 (Final exam)** covers *weeks* 1-8 (approximately ½ of questions will be from weeks 7-8 with remaining questions being comprehensive-chapters 1-16).

NOTES: The instructor expects emails with questions or other concerns about the class or any course activities. Communication with the instructor regarding due dates should be initiated **BEFORE** items are due.
Exams, participation assignments and homework assignments are set to close at a pre-determined time (based on Plainview-CT). **Failure to submit any coursework by the posted deadline will result in a zero.**
This outline and other syllabus items are subject to change at university or instructor discretion.

Exception for serious illness (hospital time) or major emergencies may be allowed only at instructor discretion. You may be required to furnish evidence of any extenuating circumstances. If you are military and will be going TDY during the course, you need to let me know ahead of time (verification from a commanding officer may be required).

GEOL 3402 VC – Summer 2026
DUE DATES: Print this file and check often. MARK YOUR CALENDARS!!!

Below is a course schedule laid out for when assignments (participation discussions, labs, and exams) are available their due date. Most coursework is ***available on Monday of each week*** and ***due on Monday of each week*** . Use 11:59 p.m. (Central Time-U.S.) as the cutoff time for the dates listed below (make sure that you submit your assignments based on the time zone in Plainview, TX and NOT where you live). *Remember* ***–all late assignments –INCLUDING EXAMS are counted as "0" (unless prior arrangements are made)!!***

NOTE: The required first assignment, syllabus acknowledgment, and Participation 1 are due by end of day Wednesday, 06/03/2026 (instructions are listed in announcement posted first day of class). These assignments must be completed before doing other course work. This counts as attendance, and you will be dropped from the course if it is not completed.

In order to access ANY of the weekly directories (containing lecture notes or course assignments) or exams, you MUST complete the *Introductory Activity posted under Weekly Content* .

GEOL 3402 VC Summer 2026 Course Calendar		
Week	Date	Assignments
1	Monday, June 1, 2026	Required First Assignment, Syllabus Acknowledgement, Participation 1 - Available
1	Tuesday, June 2, 2026	
1	Wednesday, June 3, 2026	Required First Assignment, Syllabus Acknowledgement, Participation 1 - Due
1	Thursday, June 4, 2026	
1	Friday, June 5, 2026	
1	Saturday, June 6, 2026	
1	Sunday, June 7, 2026	
2	Monday, June 8, 2026	Participation 2 - Available
2	Tuesday, June 9, 2026	
2	Wednesday, June 10, 2026	
2	Thursday, June 11, 2026	
2	Friday, June 12, 2026	
2	Saturday, June 13, 2026	
2	Sunday, June 14, 2026	
3	Monday, June 15, 2026	Exam 1 - Available
3	Tuesday, June 16, 2026	
3	Wednesday, June 17, 2026	
3	Thursday, June 18, 2026	
3	Friday, June 19, 2026	
3	Saturday, June 20, 2026	
3	Sunday, June 21, 2026	
4	Monday, June 22, 2026	Exam 1, Participation 2 - Due; Participation 3 - Available
4	Tuesday, June 23, 2026	
4	Wednesday, June 24, 2026	
4	Thursday, June 25, 2026	
4	Friday, June 26, 2026	
4	Saturday, June 27, 2026	
4	Sunday, June 28, 2026	
5	Monday, June 29, 2026	Exam 2 - Available
5	Tuesday, June 30, 2026	
5	Wednesday, July 1, 2026	
5	Thursday, July 2, 2026	
5	Friday, July 3, 2026	
5	Saturday, July 4, 2026	
5	Sunday, July 5, 2026	
6	Monday, July 6, 2026	Exam 2, Participation 3 - Due; Participation 4 - Available
6	Tuesday, July 7, 2026	
6	Wednesday, July 8, 2026	
6	Thursday, July 9, 2026	
6	Friday, July 10, 2026	
6	Saturday, July 11, 2026	
6	Sunday, July 12, 2026	
7	Monday, July 13, 2026	Exam 3 - Available
7	Tuesday, July 14, 2026	
7	Wednesday, July 15, 2026	
7	Thursday, July 16, 2026	
7	Friday, July 17, 2026	
7	Saturday, July 18, 2026	
7	Sunday, July 19, 2026	
8	Monday, July 20, 2026	Exam 3, Participation 4 - Due; Final Exam - Available
8	Tuesday, July 21, 2026	
8	Wednesday, July 22, 2026	
8	Thursday, July 23, 2026	
8	Friday, July 24, 2026	
8	Saturday, July 25, 2026	Final Exam - Due
8	Sunday, July 26, 2026	