Angelo State University
GEOL 1347
Introduction to Meteorology
Fall 2019
Instructor: Mrs. Jessica A. Garza
Office Hours: VIN 130, MWF: 9-9:30am, 11-11:30am, M 1:30-2:30pm, OR by apt
Email: jgarza85@angelo.edu
Prerequisites: N/A
Office phone: (325) 486-6987
Class Meeting Dates/Days/Times: ONLINE 16 WEEK 08/27 – 12/13

COURSE DESCRIPTION:
The course introduces weather, clouds, atmospheric processes, ocean waves and climate that affect our world. This is an introductory, first course in meteorology for students pursuing degrees in science, engineering, technology, for teaching/education or related career fields, and for the weather enthusiast that wants to understand weather and how storms form and move. This is a non-mathematically-based course that places emphasis on the descriptive side of fundamental atmospheric principles, what the atmosphere is made of, why it is important to life, defining atmospheric air motions and cloud formations through descriptions of the various storm-types, their evolution and their impacts on society. The basics of how and why seasons occur on Earth, how the atmosphere gets and uses energy to move and how weather is forecast will be clearly and vividly provided.

Co/Pre-requisite: none.

REQUIRED MATERIALS:
- ASU email account that you check regularly
- Blackboard course site at ASU Blackboard.

ATTENDANCE POLICY: You are expected to attend all scheduled class meetings. Missed lecture activity points CANNOT be made up. Please inform me well ahead of time if you will need to be absent for any reason including religious holidays. NOTE: You are NOT automatically dropped if you stop attending class. November 2 is the last day to drop a course.

STUDENT LEARNING OUTCOMES: This course is designed to familiarize the student with the processes, principles, and theories involved in Meteorology. Learning outcomes will be evaluated by homework, quizzes, group work, and exams. At the end of this course, the student will be able to:

1. Analytically examine the phenomena of the solar and terrestrial radiation and understanding the energy transfer by radiation, conduction, and convection, and explain the factors that determine the transport of solar energy over the Earth's surface and describe global distribution of temperature.
2. Identify and understand clouds and storms of all types and optical features in the atmosphere. The formation of cumulonimbus vs. stratus clouds, the development of mid-latitude cyclones vs. tropical cyclones, and the tropospheric variables that effect these meteorological structures will be explored.
3. Describe fundamental concepts, theories and physical laws relevant to how the atmosphere we live in operates. Such topics will include the laws of thermodynamics, conservation of mass, the hydrologic conceptual model, and the wave cyclone theory.

4. Practice applications of weather basics which will be applied to everyday living, thus allowing the student to plan around the dynamic atmosphere’s diurnal variability and understand when it is or is not life-threatening.

5. Have a clear understanding of how weather is forecast and why some weather quantities are far easier to forecast than others are.

6. Acquire hands on experience with weather observations and be able to visit a National Weather Service office where forecasting is performed around the clock.

7. Learn specific tools to help them communicate better ideas and concepts that may be abstract to others, thus they will be able to easily share learned knowledge from this course with others.

8. Clearly understand our complex atmosphere and the many constantly change weather features within it.

CORE CURRICULUM STUDENT LEARNING OUTCOMES: The following list of core curriculum student learning outcomes will be met and measured during this course.

<table>
<thead>
<tr>
<th>Student Learning Outcome</th>
<th>Assessment Method</th>
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<tbody>
<tr>
<td>1. Gather, analyze, evaluate, and synthesize information relevant to a question or issue</td>
<td>Blackboard Assignments and Quizzes</td>
</tr>
<tr>
<td>2. Develop, interpret, and express ideas through effective visual communication.</td>
<td>Mindtap Assignments</td>
</tr>
<tr>
<td>3. Manipulate and analyze numerical data and arrive at an informed conclusion</td>
<td>Blackboard Assignments</td>
</tr>
<tr>
<td>4. Manipulate and analyze observable facts and arrive at an informed conclusion</td>
<td>Quizzes and Exams</td>
</tr>
<tr>
<td>5. Work effectively with others to support and accomplish a shared goal.</td>
<td>Discussion Board/Group Work</td>
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WEEKLY TABS: A typical week will combine your textbook readings, discussions, group activities, multimedia videos, and other demonstrations and activities to give you an opportunity to learn concepts in an active manner as possible, although most of the learning you will do in this class will be based on your ability to keep up with textbook readings.

GRADING:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Mindtap Assignments</td>
<td>20%</td>
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<tr>
<td>Blackboard Assignments</td>
<td>26%</td>
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<tr>
<td>Blackboard Quizzes</td>
<td>26%</td>
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<tr>
<td>Midterm Exam</td>
<td>10%</td>
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<tr>
<td>Final Exam</td>
<td>25%</td>
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<tr>
<td>Group Project</td>
<td>6%</td>
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NO LATE WORK ACCEPTED IN THIS COURSE.

GRADING SCALE:

100-90=A; 89-80=B; 79-70=C; 69-60=D; 59 and below=F

CLASS PREPARATION ASU EMAIL: Since class announcements will be routinely distributed via email and Blackboard, you will need to regularly check your ASU email account and our course Blackboard site (daily). All course correspondence will be through your ASU email account and Blackboard. ASU provides Internet and email services to you at any of the computer labs on campus. Call 942-2911 to set this up if necessary.

KNOW THE ASU HONOR CODE: Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code, which is contained in both print and web versions of the Student Handbook.

STUDENTS WITH DISABILITIES: 1. “Angelo State University is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments Act of 2008 (ADAAA), and subsequent legislation.”

2. The Office of Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student’s responsibility to initiate such a request by contacting the Office of Student Affairs, University Center, Room 112 at (325) 942-2047 or (325) 942-2211(TDD/FAX) or by e-mail at studentservices@angelo.edu to begin the process. The Office of Student Affairs will establish the particular documentation requirements necessary for the various types of disabilities.

Reasonable accommodations will be made for students determined to be disabled or who have documented disabilities.

TITLE IX: Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Boone, J.D.

You may submit reports in the following manner:

Online: www.angelo.edu/incident-form

Face to Face: Mayer Administration Building, Room 210
Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State’s policy please visit: www.angelo.edu/title-ix.

**STUDENT ABSENCE FOR OBSERVANCE OF RELIGIOUS HOLY DAYS:** A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for Observance of Religious Holy Day for more information.

**INCOMPLETE GRADE POLICY:** It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 Grading Procedures for more information.

**ACADEMIC INTEGRITY:** Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the Statement of Academic Integrity.

**PLAGIARISM:** Plagiarism is a serious topic covered in ASU’s Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center.

**COPYRIGHT POLICY:** Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

**GENERAL POLICIES RELATED TO THIS COURSE:** All students are required to follow the policies and procedures presented in these documents:

- Angelo State University Student Handbook
- Angelo State University Catalog

**SYLLABUS CHANGES:** The faculty member reserves the option to make changes as necessary to this syllabus and the course content. If changes become necessary during this course, the faculty will notify.
students of such changes by email, course announcements and/or via a discussion board announcement. It is the student’s responsibility to look for such communications about the course on a daily basis.

**COURSE EVALUATION:** Students are provided the opportunity and are strongly encouraged to participate in a course evaluation at the end of the semester.

**GEOLOGIC EXHIBITION ORGANIZATION (GEO):** GEO, the student organization of all interested in geology (not just majors/minors), meets almost every Wednesday @ 6:00PM. GEO is a student chapter of the American Association of petroleum Geologists (www.aapg.org). Sigma Gamma Epsilon, the national honor society of the earth sciences is related to GEO.

**YOU CAN MAJOR OR MINOR IN GEOLOGY @ ASU!** See the BS in Geoscience requirements at https://www.angelo.edu/physics/geoscience_degree.php. A Geology Minor requires 18 hours of geology courses. Good and rewarding careers exist for geologists, geophysicists, hydrogeologists, secondary science teachers, and petroleum engineers. Talk to your professor and read http://www.angelo.edu/dept/physics/Geosciences/geoscience_careers.php.

**GETTING STARTED**

The "Getting Started" Page in Blackboard gives you a general breakdown of:

**1) Your weekly tasks.**

Each week you'll need to...
1. Check for any announcements.
2. Read textbook chapters.
3. Review all chapter materials (power point lectures, videos, handouts, etc.).
4. Complete all items due (assignments, quizzes, MindTap assignments, etc.).

Note: For each chapter, you will usually, have 3 categories of items due: a Ch Quiz, a Ch Assignment, and a Ch MindTap assignment. See information below.

Note: All work for this course will be organized in Weekly-Tabs (1-16). Midterm and Final exam will be completed during week 8 and 16.

**2) Information about the items that will be due each week.**

As noted above, each chapter will usually (but not always) have the following 3 categories of items due: a Ch Quiz, a Ch Assignment, and a Ch MindTap Assignment. All work in this course is individual unless specified as a group project.

**Quiz -**

Type: Typically multiple choice and true/false.
Point Value: On the order of ~10 to 20 questions, out of 100 points.
Details: Not timed, and available for at least a one week period. This means you can enter and exit the quiz as you wish, and take the time to cite the question information in your textbook to come up with the correct answer.
Submissions: Given this set up, you only have ONE chance at your quiz submission. No repeats, retakes, or exceptions.

In the large scope of things: By the end of the semester you will have had 18 quizzes total, one per chapter, which means each quiz will be worth about ~1.44 points to make up a 26% weight total by the end of the semester (1.44 x 18=26% of your total grade).
Assignment -
Type: Can be of any variety (short answer question, short answer essays, diagrams, etc).
Point Value: 100 points.
Details: Assignment submission: Usually a text box submission or upload submission. Note that only certain uploads (attachments) are acceptable (pdf, txt, doc, or docx only, no exceptions).
More Details: Not timed, and available for at least a one week period. Again, you can enter and exit the assignment for the purpose of copy and pasting the instructions to work on the assignment outside of Blackboard and utilize your textbook.
Submissions: There aren't multiple submissions for the assignment. Once you submit the system won't allow you you submit again.
In the large scope of things: By the end of the semester you will have had 16 assignments total, at most one per chapter, which means each assignment will be worth 1.625 points to make up a 26% weight total by the end of the semester (1.625 x 16=26% of your total grade).

MindTap Assignment -
Type: These are completed through your linked "MindTap" and are labeled as "Concept Animations".
Point Value: 100 points
Details: The MindTap assignment folder usually has one-four of these "concept animations" for you to complete. These are extremely short, and typically only have about three questions associated with the animations. You can replay the animations as many times as you need to, and have access to the questions while watching the animation.
Submissions: For these MindTap assignments ("concept animations") you have two chances to submit. The software will record your best submission.
In the large scope of things: For each chapter you will have anywhere from 0-4 MindTap Assignments ("concept animations") to complete. By the end of the semester you will have completed 24 total, which means each one will be worth about ~0.833 points to make up a 20% weight total by the end of the semester (0.833 x 24=20% of your total grade).

Other Work Items:
Midterm Exam (10% weight total) - Week 8 -
Type and point value: 25 multiple choice questions (worth 50 points), 2 essay questions (worth 50 points).
More Details: Not timed, and available for at least a one week period. You can enter and exit the exam for the purpose of researching the exam questions outside of Blackboard and to utilize your textbook.
Submissions: There aren't multiple submissions for the assignment. Once you submit the system won't allow you you submit again.
In the large scope of things: You will have one midterm exam which will be worth 10% of your grade.

Group Project (6% weight total)- Week 10-
Type and point value: Group Assignment worth 100 points.
Submissions: There aren't multiple submissions for the assignment. Once you submit the system won't allow you you submit again.
In the large scope of things: You will have 1 group project worth 6% of your grade. Details to come during week 9, so don't worry about it until then.
Final Exam (12% weight total)-Week 15/16-
Type and point value: 25 multiple choice questions (worth 50 points), 1 essay question (worth 50 points).
More Details: Not timed, and available for at least a one week period. You can enter and exit the exam for the purpose of researching the exam questions outside of Blackboard and to utilize your textbook.
Submissions: There aren’t multiple submissions for the assignment. Once you submit the system won’t allow you you submit again.
In the large scope of things: You will have 1 final exam which will be worth 10% of your grade.

(3) What you should do to start the course.

In your course navigation menu to the left you will need to view ALL available Tabs to start the course.

Additional info:

Announcements- I usually send out an announcement from week to week.
Syllabus, Course Overview, Schedule, etc.- Here you will find all course information (policies, due dates, textbook info, etc). Read this twice.
Weekly Tabs 1-16- Here you will find all work (quizzes, assignments, exams, chapter material), organized in these weekly tabs.
Grades- Here you will keep track of your grades.
Any questions let me know.

Message me through our Blackboard course ("Course Messages"), as opposed to emailing me at my ASU email.

Do not get caught in the rain. Put in the effort, meet the deadlines.

Lastly, don’t forget to introduce yourself. SEE THE INTRODUCTIONS LINK in the course navigation menu and follow instructions.

I’m very excited to meet everyone!

FINAL NOTE:

It is my goal to make this class both interesting and informative for you. With a reasonable amount of effort, it should be possible for everyone to meet the course objectives and earn a passing grade. With additional effort, aptitude, and investment of time, students may earn even higher course grades. If at any time you run into difficulties with the material, or need assistance or clarification, please do not hesitate to ask for help. I am here for you, and I will be glad to entertain any reasonable requests.

http://www.angelo.edu/student-handbook/community-policies/academic-integrity.php
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