GEOG 4875 Earth Science Topics (Weather & Climate)
Remote Synchronous
MW 12:30pm-1:50pm
Spring 2021

Instructor: Dr. Feifei Pan
Email: feifei.pan@unt.edu
Online Office hours: MW2:00 PM - 4:00 PM (Zoom link: https://unt.zoom.us/j/86459291215, passcode can be found at the class website at Canvas) or by appointment.
Live Stream Class Zoom Link: https://unt.zoom.us/j/85327092208 (Passcode will be posted at UNT Canvas and also sent to each student's UNT email address before every lecture starts.)
Email: feifei.pan@unt.edu
Class Website: All lecture slides and announcements will be posted at the UNT Canvas.

Course Description:
This is an earth system science course focusing on the atmospheric environment and emphasizing the understanding and application of meteorological principles. The topics include the composition, origin, and structure of the atmosphere, air mass, middle-latitude cyclones, weather prediction, thunderstorms, tornadoes, hurricanes, global climate, climate change, and air pollution.

Recommended Textbook:
Ahrens C.D., and Henson R., 2019. Meteorology Today: An Introduction to Weather, Climate, and the Environment, Edition 12th, Cengage Learning, ISBN-13: 978-1-337-61668-3.

Grading Policy:
90% of grade is obtained from four exams. Attendance to the live stream Zoom meeting is mandatory and worth 10%. Absences can be excused if the excuse notes are emailed to me ahead of time. To encourage student participation, a student will obtain one point if he/she answers one question correctly in class. One point is equal to 0.1 actual extra points that will be added to the student's final overall grade. To help students prepare for the tests, a review sheet will be distributed after each chapter, and a review session will be given before each test. The final will not be comprehensive. All exams will be online open book and open-notes tests that contain multiple-choice, T/F, fill in the blank, and short questions. All students must take the final exam. All grades for the course will be final. No assignments or work will be considered after the final grade has been recorded. The weight for each assessment is given as follows: **Exam 1= 15%, Exam 2 = 20%, Exam 3 = 25%, Final Exam = 30%, Attendance =10%**. Course grades will be assigned according to this scale: A=90-100, B=80-89, C=70-79, D=60-69, F: < 60. A curve might be applied if the class average is lower than expected.

CLASS SCHEDULE

DATE	TOPIC(s)	Reading Assignments
Jan. 11 –Feb. 8	Ch.1 Earth and its Atmosphere Ch.2 Energy and the Atmosphere Ch.3 Seasonal and Daily Temperatures Ch.4 Atmospheric Humidity Ch.5 Condensation Dew, Fog, and Clouds **Ch.1-Ch.5 Review Session on Feb. 3** **Exam 1 on Feb. 8 (covering parts of Ch.1-Ch.5)**	**Ch1-5**
Feb. 10 –Mar. 8	Ch.6 Atmospheric Stability and Cloud Formation Ch.7 Precipitation Ch.8 Air Pressures and Winds Ch.9 Small-scale and Local Atmospheric Circulations Ch.10 Global Atmospheric Circulations **Ch.6-Ch.10 Review Session on Mar. 3** **Exam 2 on Mar. 8 (covering parts of Ch.6-Ch.10)**	**Ch6-10**
Mar. 10-Apr. 5	Ch.11 Air Masses and Fronts Ch.12 Middle-Latitude Cyclones Ch.13 Weather Forecasting Ch.14 Thunderstorms Ch.15 Tornadoes **Ch.11-Ch.15 Review Session on Mar. 31** **Exam 3 on Apr. 5 (covering parts of Ch.11-Ch.15)**	**Ch11-15**
Apr. 7– Apr. 29	Ch.16 Hurricanes Ch.17 Global Climate Ch.18 Climate Change Ch.19 Air Pollution **Ch.16-Ch.19 Review Session on April 21** **Final Exam on April 28, 10:30am-12:30pm (covering parts of Ch.16 -Ch.19)**	**Ch16-19**

This syllabus is definitely subject to change at anytime during the semester.

Check the class website frequently for changes that may occur due to weather, or other unforeseen events.