

# **GEOGRAPHY 1401.02: WEATHER AND CLIMATE (LECTURE)**

"Sunshine is delicious, rain is refreshing, wind braces us up, snow is exhilarating; there is really no such thing as bad weather, only different kinds of good weather." - John Ruskin – English writer & artist

"As long as old men sit and talk about the weather, as long as old women sit and talk about old men." - Randy Travis

Professor	: Dr. John B. Strait	Class Room:	215 Lee Drain Building (LDB)
Office:	332 F Lee Drain	Class Time:	T/Th: 11:00 – 12:20 am
Phone:	294-4077	Office Hours:	Tuesday, 2:00-3:30 pm;
E-Mail:	jstrait@shsu.edu		Wednesday; 10 – 12:00; or by
			appointment

## Course Description:

This course will present and explore the introductory concepts of the physical processes and patterns that control our Earth's atmospheric system. In addition, topics like weather forecasting, air pollution and climate change, will also be incorporated into the course. There is a separate lab component (one credit course taught by a different instructor) that you must also register for that will reinforce and supplement concepts learned in class.

## Course Objectives:

Upon completion of this course, students should be able to:

\*analyze, describe, and diagram the basics of major atmospheric processes including energy, pressure, wind, precipitation, air masses, fronts, and storm systems.

\*perform basic calculations pertinent to these processes (fundamental algebra skills assumed).

\*describe and diagram how these processes are linked in a system.

\*analyze, describe and diagram the spatial patterns of weather systems.

\*describe some of the impacts of weather on human activity.

\*describe all of the different climates/biomes of the world and the reasons for each locale. \*articulate the different arguments for each side of the climate change debate.

## **Required Materials**

\*Netoff, D. I. et al., 2014. *eWeather and Climate*. 6<sup>th</sup> edition, The START Group, New Braunfels, Texas. (Textbook for the course – downloadable file with access code – stamped on first page of lab manual)

\*Netoff, D. I. and A. R. Fujimoto-Strait, 2014. *Weather and Climate*. 2<sup>nd</sup> edition. The START Group, New Braunfels, TX. (Lab manual for the course) **YOU WILL NEED THE LAB MANUAL FOR THIS COURSE!** The lab manuals can be purchased at the University B&N bookstore and also at <u>Homegrown Marketplace</u> (diagonal across from Old Main Market). \*The instructor will also distribute and/or post on Blackboard supplementary reading material (e.g., newspaper articles; journal articles; etc.) necessary for the course.

### Course Format and Grading Policies:

This course will be primarily lecture-based, however, there will be a discussion component focused on specific weather and climate topics. The instructor will provide students with the necessary readings to complete this discussion component. Material from these discussions will also be incorporated on the exams and final exam. When registering for GEOG 1401, all students should also be registered for a <u>lab class</u> that meets once a week for 1 hour and 50 minutes (or the online lab). However, students enrolled in this lecture course can enroll in the online section of GEOG 1401 lab. In-class labs will begin the week of January 29<sup>th</sup>. The lab portion of *Weather and Climate* is an activity-related treatment of the basic components of meteorology and climatology, and how they affect humans.

Students are expected to attend class on a regular basis. Failure to do so may result in the lowering of your grade. If a student misses more than 25% of the course, the student will fail the <u>course</u>. The course grade will be determined according to the student's performance on 3 exams, a comprehensive final exam, one assignment (weather project), lab grade, and class attendance/participation/discussion.

Exam (3 x 16% each)	-	48%
Comprehensive (Somewhat) Final Exam	-	16%
Individual Weather Assignment (Weather Project)	-	8%
Participation & Attendance (lecture only)	-	3%
Geography 1401 LAB Grade	-	25%

*Exams*: The exam format will mostly consist of subjective (multiple chose, true/false) questions. Exam questions will be drawn from class lecture, films/documentaries, guest lectures, textbook and supplementary readings, and class discussion. There are 3 exams given throughout the semester, plus a somewhat comprehensive final. Each of the exams are worth 16% of the overall grade. Make-up exams are only given if there is a valid documented excuse. In order to be given the opportunity to take a make-up exam, the instructor must be contacted (either by phone or email) within 24 hours of the scheduled exam time.

*Comprehensive Final Exam*: The final exam will be cumulative, though most of the questions will relate to the last section of the course between the third exam and the final exam. This exam will be in the same format as previous exams with mostly subjective questions. This exam is worth 16% of your total grade.

*Individual Weather Project Assignment*: The one out-of-class assignment, the weather project, will be due on the last day of class. Each student will research and tabulate actual weather data, which will be used to construct a weather graph (demonstrating temperature & precipitation data) for an assigned location for a 30 day period. Students will then use the data plotted on the climate graph to write a one-page summary explaining the nature of the weather, or weather-related events, the assigned location experienced over the course the time period. More information about this assignment will be discussed mid-way through the semester.

*Class Attendance/Participation*: Regular attendance and relevant/insightful discussion (in lecture; on discussion days in class) will be used in borderline cases of a student's grade in this course. If a student misses more than 25% of the course, the student will fail the course.

*Labs*: Lab grades will be determined based upon weekly lab quizzes and a graded lab manual. Lab grades count 25% of your total course grade for this 4-credit course. This is a science core course and labs are an integral part of any science discipline.

-- Face-to-face Weather labs begin the week of January 29th.

#### Exam Dates:

Tuesday, February 3 <sup>th</sup>	Exam 1 (16% of the total grade)
Thursday, March 8 <sup>th</sup>	Exam 2 (16% of the total grade)
Tuesday, April 10 <sup>th</sup>	Exam 3 (16 % of the total grade)
Thursday, May 3rd	Weather Project Assignment (8% of the total grade)
TBA (date determined by	
University schedule)	Final Exam (16% of the total grade)

### Other Important Dates:

Thursday, February 1; 12th Class Day; Last day to drop without a Q and receive 100% refund Friday, April 6; Last day to drop with a Q drop Monday, March 12 through Friday, March 16 – Spring Break Holiday; NO CLASS Friday, March 30 – Good Friday; NO CLASS

#### Academic Honesty:

All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action; *NO QUESTIONS ASKED*! The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials. I suggest you read the Student Handbook regarding the official University policy regarding academic honesty. *Students should be aware that all written work is subject to being entered into databases that check for plagiarism, such as "Turnitin."* 

#### STUDENTS WITH DISABILITIES POLICY:

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Students with disabilities that might affect their academic performance should register with the Office of Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786, and e-mail <u>disability@shsu.edu</u>). For a complete listing of the university policy, see: <u>http://www.shsu.edu/dept/academic-</u> <u>affairs/documents/aps/students/811006.pdf</u>

#### **Special Circumstances**

If unusual circumstances arise during the semester, such as a medical problem, death in the family, etc., that adversely affects your attendance PLEASE **discuss this with me immediately and provide documentation**. Under these conditions, I will gladly do my best to accommodate your

situation by excusing absences, allowing late work to be turned in within a reasonable time period, and so on. However, if you wait until after-the-fact, at the end of the semester, to let me know that you were experiencing these adverse circumstances, there is *nothing* I can do about it at that time. I will not retroactively make accommodations and I will not give extra credit assignments to make up for grade deficiencies of any type.

#### **IMPORTANT: Final Remarks:**

Hopefully we will all enjoy ourselves exploring weather & climate this semester. As mentioned above, I hope that everyone feels free and willing to ask questions, make comments, etc. However, the size of the class and the acoustics of the classroom will make it imperative that people refrain from engaging in casual conversations with one another. If you are talking to a neighbor it becomes very difficult for people around you to hear anything. Thus, I'm asking you ahead of time to **NOT** strike up conversations amongst yourselves. NO LABTOPS OR ELECTRONIC DEVICES OF ANY KIND ARE TO BE USED IN THE CLASSROOM. This behavior not only disrupts the learning experience, it is also disrespectful. If you have something to say about the course material, please share it with the rest of us. Otherwise, you should remain respectfully quiet. I reserve the right to remove anybody from the classroom that is being disruptive, which includes carrying on conversations.

*Please be sure to contact me with any questions, comments, and/or concerns. Welcome to the course and I look forward to working with you!*