



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

MWF 12:00-12:50 pm

Fall 2017

LDB #212

*Instructor:* Ava R. Fujimoto-Strait

*Phone:* 936-294-2355

*Office Location:* LDB #335

*Office Hours:* MW 1:00-3:00 pm; or by appointment

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### **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)

\*The instructor will also distribute and/or post on Blackboard supplementary reading material (e.g., newspaper articles; journal articles; etc.) necessary for the course.

Lab manuals and downloadable ebook (textbook) for this course can be purchased at the University B&N Bookstore and Kampus Korner.

### 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 lab class that meets once a week for 1 hour and 50 minutes (or the online lab). Labs will begin the week of September 11<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 course. The course grade will be determined according to the student's performance on 3 exams (lowest exam grade dropped), a comprehensive final exam, one assignment, lab grade, and class attendance/participation/discussion.

|  |   |     |
|--|---|-----|
| Exams (3 total with lowest exam score dropped) | - | 40% |
| Comprehensive Final Exam                       | - | 25% |
| Individual or Group Assignment                 | - | 10% |
| Geography 1401 LAB Grade                       | - | 25% |

*Exams:* The exam format will mostly consist of subjective (multiple choice, 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 and the lowest exam grade of these 3 will be dropped. Therefore, each exam is worth 20%. Make-up exams are only given if there is a valid documented excuse. Please make every effort to contact the instructor (either by phone or email) if you will be missing an exam.

*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 cannot count as one of the first three exam grades to be dropped. This exam will be in the same format as previous exams with mostly subjective questions. This exam is worth 25% of your total grade.

*Individual or Group Assignment:* There will be one out-of-class assignment that can be completed individually or in a group. The assignment will involve forecasting the weather based on a series of weather maps and cloud data. 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.

### Important Dates:

|                            |                                |
|----------------------------|--------------------------------|
| September 13 <sup>th</sup> | Exam 1                         |
| October 13 <sup>th</sup>   | Exam 2                         |
| November 8 <sup>th</sup>   | Exam 3                         |
| TBD                        | Group Assignment               |
| December 4 <sup>th</sup>   | Final Exam (begins at 1:00 pm) |

*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!*