MET4532: HURRICANES

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Office Hours
Monday Per 7, Wednesday Per 2, Thursday Per 7 other times BY APPOINTMENT ONLY
Office: 3119 Turlington Hall email: matyas@ufl.edu but please ONLY use SAKAI phone: 294-7508
Notes: do not expect an immediate response to your message. I CANNOT return long distance calls – use Sakai.
When composing your message in Sakai, check the box (Send CC) that will send a copy to my regular email so that I am notified that a new message is waiting for me on Sakai.

Course Prerequisites: MET3503 Weather and Forecasting or GEO3250 Climatology

Course Objectives
This course is designed to be a capstone course that utilizes all of the concepts that you have learned in other weather-related courses. We will cover both meteorological and climatological concepts related to tropical cyclones (TCs), and there will be a lot of computer-related work with current forecasts, models, and data, and we will use GIS software for some of the analysis. We will use current TC activity to develop an understanding of these weather systems, so please keep in mind that it will be difficult to predict our class activities from one day to the next. If a tropical system is out there, we want to study it! We will also focus on hazards associated with these storms both locally and globally. It is assumed that you have a basic understanding of meteorological concepts such as the difference between high and low pressure systems and how clouds and thunderstorms develop. If you did not do well in GEO3250 or MET3503, you will not do well in this course. We will work in groups as well as individually. Please note that your enrollment in this course acknowledges your acceptance of the information contained within this syllabus.

Required Textbooks and Tools
Tools: Bring a flash drive or similar portable storage device to EVERY class to save your work

Grades and Grading Scale
Midterm 25%, Forecasting 10%, Prolific TC Quiz/Presentation 15%, Maps Discussion 10%, Research Project 20%, Quizzes (online and/or in class) 10%, Participation/Discussions/Quiz Prep 10%

A: 92.5 % or above A+: 89.5 - 92.49 % B+: 86.5 - 89.49% B: 82.5 - 86.49% B-: 79.5 – 82.49%
C+: 76.5 - 79.49% C: 72.5 - 76.49% C- : 69.5 – 72.49% D+: 66.5 - 69.49% D: 62.5 - 66.49%
D- : 59.5 – 62.49% E: < 59.5%

It is your responsibility to know your current grade. Grades will be posted to Sakai. Information pertaining to UF grading policies can be found here: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Forecasting
The class will be divided into teams that will work together to forecast formation, tracks, and storm intensity when the Atlantic basin is active. You will submit your forecasts on E-learning using the Excel sheets that I provide. They are due by the end of class on the day when forecasting occurs. Due to the uncertain nature of tropical cyclones, it is not possible to determine how many forecasts we will submit during the semester. Never save your forecast to the hard drive of your computer – only save it to your flash drive, then email copies to your group. Only 1 person per group will upload the forecast spreadsheet (.csv) and written summary (.docx) to Sakai. We will also learn to use GIS to plot the storm positions – everyone must learn how to do this!
Maps Discussion
The National Hurricane Center holds a daily maps discussion at 1:00 PM. The head forecaster presents a briefing on current TCs and regions of possible development. We will echo this format. Each student will give a briefing that includes satellite imagery, track locations, model predictions, and the NHC discussion. Specific information to include in your discussion will be presented on a separate handout – you must follow the instructions on this handout. Dr. Matyas will also upload to Sakai a sample maps discussion and will present it on the second day of class as an example. You will sign up for a day to present during that class. You must submit your slides to Sakai by 10:30 am on the day of your discussion. Be mindful of terminology and spelling.

Midterm Exam
The midterm exam (closed-book) will be held during normal class time on the day listed at the bottom of the syllabus. Unless official documentation of an absence is presented (Doctor’s note, police report), NO MAKE-UP EXAMS will be permitted! You cannot take the exam if you arrive more than 10 minutes late.

Prolific Tropical Cyclones
Each student will be assigned a tropical cyclone will prepare a Power Point presentation about it. Specific details and format of information will be provided at a later date. You will upload your slides to Sakai and present them to the class. There will also be a closed-book quiz on these TCs. I will assemble all slides presented into one presentation that you can use to study for the quiz.. Unless official documentation is presented (Doctor’s note, police report), NO MAKE-UP QUIZZES will be permitted! You will not be permitted to take the quiz if you arrive more than 10 minutes late.

Research Project
During the last part of the course, you will gain experience in obtaining and analyzing data pertaining to tropical cyclones. We will utilize a Geographic Information System to perform a spatial analysis of the data. You will be given specific instructions in a step-by-step format but the time it may take you to complete your assignment may differ from other students depending on your experience in using computers in general, experience using GIS, and the time you choose to devote to the project. You will upload a summary of your results to Sakai but will also transfer all of your files used for the analysis to my computer account by the last day of class. Please make back-up copies of your files and bring them on your flash drive to each class. Half of the grade for this project will be assessed based on the analysis files that you submit.

Participation/Discussions
Throughout the semester, you will be asked to participate in such activities as quizzing your classmates to be sure they have read the lecture material or to review for the midterm, leading discussions, and participating in discussions. Contributing to these activities will be an easy way to earn full credit for 10% of your grade. Those who choose not to participate, who do not regularly attend class, or who do not complete assignments will be penalized. Attendance alone does not qualify as participation.

Academic Honesty
You are bound by the student academic honor code. “We, the members of the University of Florida Community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.” “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” You are encouraged to help each other with projects, but you must turn in your own work. All suspected cases of honor code violations will be reported to the Dean of Students Office and actions such as receiving a zero for the assignment, lowering of the course grade by one letter, and/or other penalties will be assigned.
Sakai
This syllabus, announcements, copies of handouts, grades, and other course information will be posted on Sakai. Access this page at http://lss.at.ufl.edu If you miss a class, it is your responsibility to learn the material covered during your absence. Come see me if you have questions. You are advised to check Sakai frequently to verify that week’s activities and any announcements about upcoming quizzes, projects, etc. I may also post announcements to Sakai, and many of your assignments will be submitted through this website.

Disability Statement
Students requesting classroom accommodation must first register with the Dean of Students Office. This office will provide documentation to the student who must then provide this documentation to the Instructor. Please provide this documentation to me as soon as possible and a minimum of 1 week before a quiz or exam.

Attendance and Proper Conduct
Your performance in this course, and participation grade, will suffer if you do not attend class regularly. Arrive to class on time and do not interrupt someone’s presentation if you are late. Wait to the side, then take a seat when the student is finished. We will be utilizing the computers in TUR 3006 – please keep all foods and beverages away from areas where computers are being used. DO NOT save anything to the hard drive of the computer! It may be erased as soon as you log off. Remember to turn off cell phones, and please refrain from casual conversation once class begins. Arriving late to class more than twice will result in a lowered grade. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx.

Online Course Evaluations
Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results.

Lecture Topics
Tropical weather and terminology  Formation and motion forecasting
Atlantic basin climatology   Major hurricanes
Forecast models   Famous tropical cyclones and their impacts

Important Dates  (We may do forecasting on any given Monday during 5th period.)
September 2 – No Class  Labor Day
September 3 – All quiz questions, answers, and explanations uploaded to Sakai by 12:00 pm
September 4 – Chapter 1 reading quiz
September 11 – Chapter 2 reading quiz
September 18 – Chapter 3 reading quiz
September 30 – Chapter 4 reading quiz
October 14 and 16 – Chapter 7 student presentations
October 30 – Midterm Exam
November 4-6 – Prolific TC student presentations
November 11 – No Class Veteran’s Day
November 13 – Prolific TC quiz
November 27 - No Class Thanksgiving
December 4 – Last Day of Class; final projects due on Sakai and files transferred to instructor’s computer