

Extreme Weather - GEO2242

[3 Credit Hours]

Gen Ed 'P' – Physical Science

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| Instructor: Zainab Ali Email: Zainabali@ufl.edu | Office Hours: Friday 9:30am - 11:30am EST [on Zoom] or by appointment (link on Canvas) |
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Course website: Log in to CANVAS at <https://elearning.ufl.edu/>

Course Communications: You can email your instructor at email given above or via email in Canvas. If emailed via Canvas, they keep a full record of it – so this is preferred.

Required Text: *'The Atmosphere'* by Lutgens, Tarbuck and Tasa, 14th edition, ISBN: 9780134801100 eBook from Pearson. Available access to sign up for this text can be found by logging into the course on Canvas and accessing via the canvas page. Cost is around \$80.00. This is a required e-text, and you must purchase it via UF All-Access (<https://www.bsd.ufl.edu/allaccess>). **Weekly reading assignments, quizzes and homework assignments will be run through the eBook and the Mastering Meteorology platform, which is synced with the Canvas page, so you MUST obtain this as soon as possible.**

- Pearson Help representatives: **Christina Bolton DeStefano** (christina.destefano@pearson.com)
- Christina's office hours can be found in the Getting Started Module on canvas.
- *See information in Canvas on How to Sign Up and Purchase this eBook – on 'Home' page of canvas course, via UF All-Access. PDFs of eBook and Mastering registration instructions are available in Canvas.*

Course Goals and/or Objectives: This course will introduce students to the basic concepts of the science of weather and climate and current scientific developments in areas such as extreme weather prediction, global climate change, and weather forecasting. In addition, the course will address the impact of extreme climate and weather events on society and the environment. The goal of this course is to bring weather and climate alive through required readings, assignments, video presentations, satellite technologies, online class activities and computer simulations. Weekly readings will be enhanced using multimedia products and online activities, reinforcing concepts related to extreme climate and severe weather events.

Course Policies & Assignments:

Course organization: This course is organized by 'Modules'. Each module covers a chapter in the eBook and has three [3] assignments: a homework assignment, a mapping activity, and an end of the module quiz.

Readings and Homework: Each module has an assigned chapter reading with a related module homework – these test that you have completed the readings, and the goal of these homework assignments is to test your understanding of the material, to reinforce concepts from the reading and videos, and to allow you to apply your skills and knowledge in a relaxed online learning environment. You need to read the chapter prior to starting and completing the homework. There is a homework for each module, they are worth 100 points each, contain 10-20 questions, and will take roughly 1 to 1.5 hours (some are shorter like 30-45 minutes). You have 3 attempts, and your best score is kept.

Mapping Activities: The mapping activities will introduce you to some basic mapping concepts like layers and projections, etc. As well as applying critical thinking to different weather and geography topics and issues presented throughout the course. These will use 'MapMaster2.0' questions (where available), 'Thinking Spatially' questions (where available) and 'Encounter' questions like Encounter Meteorology/Physical Geography/Geosystems that use Google Earth Pro. MapMaster and Google Earth Pro are fully integrated into the Mastering online platform and built into the questions – they will pop up as another window. These assignments are worth 100 points each, contain 4-8 questions and have 3 attempts where your top score counts. These have an estimated completion time that is less than the homework but will depend on individuals working with the online tools and if you need help in office hours, for example.

End of Module Quizzes: To summarize the module and test your general knowledge and comprehension of that module's topics, there is a quiz. These are worth 100 points each, consist of 50 questions, and 1 attempt of 60 minutes. Keep in mind, this tests the range of all materials in the module and eBook chapter – you will need to read chapter to do well in the quizzes. If you have extenuating circumstances where you need another attempt, or disability accommodations (discussed below) where you need extra time, etc., please communicate this in advance. Additionally, the number of modules and assignments (including the quizzes) are created in such a way that one bad grade or missed assignment will not tank your final grade in the course.

Final Exam: There will be a final exam for this course. This will test your comprehension and understanding of the material from the entire course. Module assignments and activities will make up most of your overall grade. The final exam will be worth 525 points or about 11% of the total points in the course. The final exam is scheduled for **Friday April 26th, 2024**. The exam portal will open from 12:00 a.m. to 11:59 p.m. on April 26, 2024. You can start and finish the exam anytime within this period, but once initiated, completion of the exam is mandatory. It will be a comprehensive exam and will cover all material in the course. There will be 10 questions from each module for a total of 140 questions. You will have at least 2 hours to complete the final exam.

UF Policies:

University Policy on Accommodating Students with Disabilities: Students requesting accommodation for disabilities must first register with the Dean of Students Office (<https://disability.ufl.edu/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive; therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

University Policy on Academic Misconduct: Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>.

Netiquette & Communication Courtesy: All members of the class are expected to follow rules of common courtesy in all email messages, zoom meetings, threaded discussions, and chats.

Grading Policies:

| Assignment Type | Points |
|-------------------------------------|---------------------|
| Introduction to Mastering Geography | Complete/Incomplete |
| Module eBook Chapter Readings | Complete/Incomplete |
| Module Homework | 100 points each |
| Module Mapping Activity | 100 points each |
| End of Module Quiz | 100 points each |
| Final Exam | 525 points |

GRADING SCHEME:

All grades will be available for you to see in Canvas and will be updated weekly. It is your responsibility to know how well you are doing in the class.

93-100% = A

90-92.9% = A-

87-89.9% = B+

83-86.9% = B

80-82.9% = B-

77-79.9% = C+

73-76.9% = C

70-72.9% = C-

67-69.9% = D+

63-66.9% = D

60-62.9% = D-

Less than 60 = E (Fail)

Disclaimer: This syllabus represents current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.

Assignment schedule below.

| Module | Assignments | Points | Dates |
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| Getting Started | * Introduction to Mastering Geography | * Complete/Incomplete | Friday, January 12, 2024 |
| Module 1 <i>Introduction to the Atmosphere</i> | * Read Chapter * Homework * Mapping Activity * End of Module Quiz | * Complete/Incomplete * 100 points * 100 points *100 points | Monday, January 15, 2024 through Friday, January 19, 2024 |
| Module 2 <i>Heating Earth's Surface and Atmosphere</i> | * Read Chapter * Homework * Mapping Activity * End of Module Quiz | * Complete/Incomplete * 100 points * 100 points *100 points | Monday, January 22, 2024 through Friday, January 26, 2024 |
| Module 3 <i>Temperature</i> | * Read Chapter * Homework * Mapping Activity * End of Module Quiz | * Complete/Incomplete * 100 points * 100 points *100 points | Monday, January 29, 2024 through Friday, February 2, 2024 |
| Module 4 <i>Moisture and Atmospheric Stability</i> | * Read Chapter * Homework * Mapping Activity * End of Module Quiz | * Complete/Incomplete * 100 points * 100 points *100 points | Monday, February 5, 2024 through Friday, February 9, 2024 |
| Module 5 <i>Forms of Condensation and Precipitation</i> | * Read Chapter * Homework * Mapping Activity * End of Module Quiz | * Complete/Incomplete * 100 points * 100 points *100 points | Monday, February 12, 2024 through Friday, February 16, 2024 |
| Module 6 <i>Air Pressure and Winds</i> | * Read Chapter * Homework * Mapping Activity * End of Module Quiz | * Complete/Incomplete * 100 points * 100 points *100 points | Monday, February 19, 2024 through Friday, February 23, 2024 |
| Module 7 <i>Circulation of the Atmosphere</i> | * Read Chapter * Homework * Mapping Activity * End of Module Quiz | * Complete/Incomplete * 100 points * 100 points *100 points | Monday, February 26, 2024 through Friday, March 1, 2024 |
| Module 8 <i>Air Masses</i> | * Read Chapter * Homework * Mapping Activity * End of Module Quiz | * Complete/Incomplete * 100 points * 100 points *100 points | Monday, March 4, 2024 through Friday, March 8, 2024 |
| Module 9 <i>Midlatitude Cyclones</i> | * Read Chapter * Homework * Mapping Activity * End of Module Quiz | * Complete/Incomplete * 100 points * 100 points *100 points | Monday, March 11, 2024 through Friday, March 15, 2024 |
| Module 10 <i>Thunderstorms and Tornadoes</i> | * Read Chapter * Homework * Mapping Activity * End of Module Quiz | * Complete/Incomplete * 100 points * 100 points *100 points | Monday, March 18, 2024 through Friday, March 22, 2024 |
| Module 11 <i>Hurricanes</i> | * Read Chapter * Homework * Mapping Activity * End of Module Quiz | * Complete/Incomplete * 100 points * 100 points *100 points | Monday, March 25, 2024 through Friday, March 29, 2024 |
| Module 12 <i>Weather Analysis and Forecasting</i> | * Read Chapter * Homework * Mapping Activity * End of Module Quiz | * Complete/Incomplete * 100 points * 100 points *100 points | Monday, April 1, 2024 through Friday, April 5, 2024 |
| Module 13 <i>The Changing Climate</i> | * Read Chapter * Homework * Mapping Activity * End of Module Quiz | * Complete/Incomplete * 100 points * 100 points *100 points | Monday, April 8, 2024 through Friday, April 12, 2024 |
| Module 14 <i>World Climates</i> | * Read Chapter * Homework * Mapping Activity * End of Module Quiz | * Complete/Incomplete * 100 points * 100 points *100 points | Monday, April 15, 2024 through Friday, April 19, 2024 |
| Module 15 | Final Exam | 525 points | Friday, April 26, 2024 |
| | | Total 4725 points | |

Additional Resources

- **Academic Resources**

- E-learning technical support: Contact the UF Computing Help Desk at <https://helpdesk.ufl.edu/> , 352-392-4357 or via email at helpdesk@ufl.edu.
- Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services at <https://career.ufl.edu/>
- Library Support: <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.
- Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352-392-6420. General study skills and tutoring. <http://teachingcenter.ufl.edu/>

- **Health and Wellness**

- Resources U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit <https://umatter.ufl.edu/> to refer or report a concern and a team member will reach out to the student in distress.
- Counseling and Wellness Center: Visit <https://counseling.ufl.edu/> or call 352-392-1575 for information on crisis services as well as non-crisis services.
- Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need or visit <https://shcc.ufl.edu/> .
- UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; <https://ufhealth.org/emergency-room-trauma-center>