## I. General Information

- **Course Number: GEO2200**
- **Course Name: Dynamic Planet Earth**
- **Department of Geography, University of Florida**
- **Summer B 2025**
- **Primary General Education Designation: Physical Sciences (P)**

## Instructor

| **Name** | **Md Muyeed Hasan** |
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| **Designation** | Doctoral Student in Geography |
| **Email** | mdmuyeedhasan@ufl.edu |
| **Mobile No. (emergency only)** | 3527093787 |
| **Zoom** | https://ufl.zoom.us/j/2936747663 |
| **Office Hours** | Thursday 11.00 am- 1.00 pm (Online or Room-50, Dauer Hall for in-person with an appointment) |

| **Name** | **Christopher Williams** |
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| **Designation** | Doctoral Student in Geography |
| **Email** | Message via Canvas Inbox tool |
| **Office Hours** | Wednesday 11 a.m.-noon or by appt. on Zoom (link provided in Canvas) |

## Course Overview

The course mainly focuses on studying some of the essential elements of the physical world, like climate and landforms, which are examined in terms of their natural occurrences, distribution, and interrelationships. The class meets the General Education requirements of a Physical Science.

## Required Textbook

The *required* textbook for this class is "***Exploring Physical Geography (2nd/3rd edition). Stephen Reynolds, Robert V. Rohli, Julia Johnson, Peter Waylen, Mark Andrew Francek. New York, NY: McGraw-Hill, 2014."*** *Either the physical book or the eBook will work for this course.* The UF bookstore may have multiple textbook versions, like the Connect key for their SmartBook (online textbook with optional self-testing) or a hardcopy textbook. If you buy the textbook from other sources and want to use McGraw-Hill Connect, you must buy a Connect key when you first register (there is a fee for this).

## Objectives of the Course

The textbook and supplemental materials will assist in accomplishing the objectives below:

- Understanding the nature of solar energy reaching the surface of the Earth and its temporal and global variability will help explain why there are seasons.
- To learn how the interactions of oceans, continents, and atmosphere transfer energy from places experiencing excess energy to those of deficit energy, and how these give rise to the typical climate of a location.
- To understand the nature and origin of energy arriving at the surface of the Earth from within the planet, the mechanisms of this energy transfer, and their global distribution.
- How do the competing energy forces from the climate system and those within the Earth interact to produce typical landscapes?

To indicate how the above influences human behavior and our environmental interaction.

## Student Learning Outcomes

- ***Understanding Solar Energy Dynamics:*** Students will learn about the nature and variability of solar energy reaching the Earth's surface and its role in causing seasonal changes.
- ***Analyze Energy Transmit Mechanisms:*** Students will understand how seas, continents, and the atmosphere interact to transmit energy around the Earth, resulting in varied climate zones.
- ***Evaluate the Internal Earth Energy:*** Learn about the origins and mechanisms of energy emitted from within the Earth, its global distribution, and its impact on geographic features and processes.
- ***Synthesize Understanding of Energy Forces:*** Explain how energy forces from the climate system and the planet's interior interact to shape the Earth's landscapes, using physical geography examples to demonstrate these processes.
- ***Impact on Human Behavior:*** Students will investigate and explain how the geological and atmospheric processes above affect human behavior and environmental interactions.
- ***Scientific Method Application:*** Use the scientific method to develop hypotheses about physical geography, conduct experiments or simulations, and critically evaluate the results using scientific reasoning.
- ***Critical Thinking and Argumentation:*** Engage in scientific argumentation by evaluating the environmental implications of natural processes and learn how to dispute and defend scientific results effectively.
- ***Practical Application through Missions:*** By completing missions, students will exhibit practical comprehension by applying theoretical knowledge to real-world geographical phenomena and effectively communicating their results in written reports.
- ***Collaboration and Presentation Skills:*** Work in groups to examine assigned issues, develop solutions, and present them in a clear and structured manner, exhibiting cooperation and communication abilities.

These goals are consistent with the educational objectives and will help ensure that students thoroughly understand the essential concepts and abilities covered in the course. They aim to equip students for academic and practical physical geography applications.

## General Education Subject Area Objectives

Physical science courses provide instruction in the scientific method's basic concepts, theories, and terms in the context of the physical sciences. Courses focus on significant scientific developments and their impacts on society, science, the environment, and the relevant processes governing physical systems. Students will formulate empirically testable hypotheses derived from the study of bodily processes, apply logical reasoning skills through scientific criticism and argument, and apply discovery and critical thinking techniques to evaluate the outcomes of experiments.

- ***Scientific Methodology:*** Students will learn about the scientific method through empirical inquiry, focusing on developing testable hypotheses based on studying physical processes like solar energy patterns and interactions between the Earth's atmosphere, oceans, and continents.
- ***Application of Scientific Theories:*** Students will use logical reasoning and scientific criticism to examine how climate, landforms, and the natural processes that govern them interact and shape global environmental patterns.
- ***Critical Thinking and Argumentation:*** Participate in scientific argumentation by assessing the impacts of energy transfers within the earth's climate system. This facilitates the development of critical thinking skills required for interpreting scientific results.
- ***Discovery and Evaluation:*** Students will use discovery strategies to critically evaluate the influence of physical systems on societal, environmental, and scientific contexts, focusing on the variability and dispersion of natural phenomena such as climate and landscapes.
- ***Impact Analysis:*** Investigate and communicate how the interplay of energy within the earth's system influences human behavior and environmental interactions, promoting an

awareness of critical scientific advances and their implications for society and the environment.

These objectives ensure that the course content is consistent to give a complete grasp of physical sciences within a societal and environmental context, as general education requires.

## II. Graded Work

### Evaluation

| Assessments | No of Assignments | Points per Assignment | Total Points | Percentage |
|---|---|---|---|---|
| Syllabus Quiz | 1 | 10 | 10 | 4 |
| Class Introduction | 1 | 10 | 10 | 4 |
| Homework | 4 | 50 | 200 | 40 |
| Missions | 2 | 40 | 80 | 12 |
| Quiz 1 | 1 | 100 | 100 | 20 |
| Quiz 2 | 1 | 100 | 100 | 20 |
| **Total** | | | **500** | **100** |

### Grading

| A | A- | B+ | B | B- | C+ | C | C- | D+ | D | D- | E |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 100% to 94.0% | <94.0% to 90.0% | <90.0% to 87.0% | <87.0% to 84.0% | <84.0% to 80.0% | <80.0% to 77.0% | <77.0% to 74.0% | <74.0% to 70.0% | <70.0% to 67.0% | <67.0 % to 64.0% | <64.0 % to 61.0% | <61.0 % to 0.0% |

***Note:*** *Under university regulations, a "C- "will not qualify as a grade for major, minor, Gen Ed, Gordon Rule, or College Basic Distribution credit.*

**I want you to know that you are responsible for knowing how well you are doing in the class.**

There will be a Grades tab in Canvas to follow your progress. Please use it to keep track of your score, and contact me if there is a discrepancy. Suppose you are unsatisfied with the score you receive on an exam or quiz, or feel an error has been made. In that case, you will be permitted **one week from when the score was posted for a review of the assessment (except for the part II exam, which will have less than a week to review as it is near the end of the** term). After this time, the score will be entered as a permanent grade.

Please see the UF catalog grading policies for current guidelines, not the discussion here: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx (Links to an external site.)

## SYLLABUS QUIZ

You must pass a syllabus quiz at the start of the course. This quiz may be taken multiple times until you **score 100%,** and there is no time limit within the quiz. It is an open syllabus, and you must take this quiz to continue with the rest of the course.

## HOMEWORKS

Each homework will consist of videos, tutorials, other materials, and questions to evaluate knowledge. Students have seven days during which the homework will be available. During these seven days, you will have unlimited time to complete it. You are welcome to review your notes, textbook, lecture videos, or outside sources during your breaks before returning to the homework.

## MISSIONS

Missions are task-oriented assignments to be completed throughout the course of the semester. Due dates for each mission will be throughout the semester; however, feel free to submit them early. You may pick topics that will be covered later in class, though we recommend that you review those lectures and/or book sections before writing up your mission. Each student is expected to accrue **80 points at 40 points per mission** (i.e., **2 missions total** during the semester). Each mission will comprise a) proof of the completed task and b) a **300-word**

**report** detailing what the task was and what physical geography process or phenomena was described, utilizing the appropriate terminology and explanations used in class.

For example, if you were to make an emergency preparedness brochure about earthquakes, submitting a copy of your brochure would be proof of completing the task. You must submit the 300-word report describing your brochure and including something about earthquakes. This write-up is expected to **demonstrate your *scientific knowledge and understanding* of the material/topic.** This semester, I am introducing social media missions as an option. If you choose this option, please complete the media release form with your mission. Also, if you decide to make a video, I will not require a 300-word report, just a few lines explaining what phenomena you chose and why.

You may choose from the following missions (repeats with a different topic are accepted, except those noted below):

- A photograph of a physical geography event or feature related to climate.
- A photograph of a physical geography event or feature related to Earth's surface.
- A photograph or proof of attending a museum exhibit that relates to physical geography.
- A photograph or proof of constructing a physical model depicting physical geography.
- An emergency preparedness brochure (or other print media) related to physical geography (e.g., hurricane, earthquake, volcano, etc.).
- A newspaper article related to any part of physical geography covered in the lecture (note: you are only allowed to pick a newspaper article once during the semester).
- A social media (Instagram, YouTube) video of 120 seconds explaining a physical geography phenomenon, and you will submit the video file and/or instructor accessible link.
- Propose your mission (instructor approval is optional but highly recommended to avoid wrong topics before you proceed).

The photo must be taken by yourself, or you must be in the photo. If your mission involves an **uncommon file type**, please check with the instructors in advance to ensure I can view it.

## Quiz

Examinations are open books and will each consist of individual multiple-choice questions.

- Two hours are allocated for each test. You will be "timed out" after this. Having logged in to take the test once, you will not be permitted to re-enter the test site for that test.
- You will have two attempts for each quiz.
- The two examinations will separately evaluate your knowledge of the two halves of the course, part I and part II**.** The **second examination** will, therefore, assess only the material presented in part II.
- Be advised that you only have until midnight on the due date for all tests and examinations to complete the questions. Please remember to sign in with adequate time to complete each evaluation.

***PLEASE NOTE****:*

- If you encounter any unexpected behavior (error messages, inability to log in, etc.), take a screenshot of the problem [In Windows (Print Scrn) and on a Mac (Cmd-Shift-4)] and paste it into a program like Word or Paint. Save this file. This is important so that your instructor knows your problem is legitimate and to assist the UF Computing Help Desk in helping you fix the problem.
- If you encounter problems that prevent you from taking the exam, immediately call the **UF Computing Help Desk at 352-392-4357**. Ask for and keep the ticket number for future reference.

## Extra Credit

There will be one extra credit offering – a homework-like assignment near the end of the class. It can have questions from any topic in class (and may even go slightly beyond). The questions will

be difficult or cover vital points from the course. The value will be 15 points, but it can fluctuate depending on the class average course grades. Do not bank on the extra credit, e.g., the homework is worth far more.

## III. Weekly Schedule:

| Week | Topics, Homework and Assignment |
|---|---|
| **Week 1** | • **Topics:** The Nature of Dynamic Planet Earth & Energy in the Atmosphere; Energy & Matter in the Atmosphere<br>• **Assigned Readings:** *Exploring Physical Geography*- Sections 1.3 - 1.5, 1.7, 2.0 - 2.6, 2.7 - 2.19 (all of them), & supplementary videos from modules<br>• **Assignment:** Homework 1: Seasons & Zenith Angle |
| **Week 2** | ▪ **Topics:** Atmospheric Motion, Atmospheric Moisture & Tropical Cyclones<br>▪ **Assigned Readings:** *Exploring Physical Geography*- Sections 3.0 - 3.13, 3.15, 4.0, 4.1, 4.7, 4.11, 5.13 - 5.15, 5.17 & supplementary videos from modules.<br>▪ **Assignment:** Mission 1 |
| **Week 3** | ▪ **Topics:** Atmosphere-Ocean-Cryosphere Interactions, Water Resources<br>▪ **Assigned Readings:** *Exploring Physical Geography*- Sections 6.0 – 6.12, 6.15, 8.0 -= 8.6, 8.8 – 8.12 & supplementary videos from modules<br>▪ **Assignment:** Homework 2: Climate; Practice- Chap 08 |
| **Week 4** | ▪ **Topics:** Plate Tectonics Part 1, Plate Tectonics Part 2<br>▪ **Assigned Readings:** *Exploring Physical Geography*- Sections 10.0 – 10.18 & supplementary videos from modules.<br>▪ **Assignment:** Quiz 1; Mission 2 |
| **Week 5** | ▪ **Topics:** Volcanoes, Deformation & Earthquakes<br>▪ **Assigned Readings:** *Exploring Physical Geography*- Sections 11.0 - 11.10, 11.13 – 11.16 & supplementary videos from modules. |

| | |
|---|---|
| | ▪ **Assignment:** Homework 3: Plate Tectonics, Volcanoes & Earthquakes |
| **Week 6** | ▪ **Topics:** Climates Around the World, Biomes & Climate Change<br>▪ **Assigned Readings:** *Exploring Physical Geography*- Sections 7.0 – 7.8, 7.11 – 7.16, 18.0 – 18.4 & supplementary videos from modules.<br>▪ **Assignment:** Homework 4: Weathering, Coasts & Climates; Quiz 2; Extra Credit |

## IV. Required Policies

### Attendance Policy

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

### Late Policy

Semesters move quickly, and falling behind with video lectures is very easy. For assignments (homework/missions), I will accept them three days late with a **20% penalty per day**. **After that, it will not be accepted, and a grade of "0" will be assigned.** No exams will be accepted late. If you cannot complete an assignment or an exam because of an excused reason (illness, family emergency, etc.), please get in touch with me as soon as possible. For the assignment to be justified, **the instructor must provide official documentation**. Instructions on sending me the documents will be handled when I am informed of the incident. Note that most of the assessments are open for multiple days. The valid reason must cover all these days. If you know of an event in advance that will conflict with an assignment or test date, it is your responsibility to contact me beforehand and let me know. I prefer to know sooner than later. Not all conflicts will be excused (e.g., you want to miss an exam to attend a rock concert). It is the instructor's discretion to determine what is justified and what is not.

### Students Requiring Accommodation

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting https://disability.ufl.edu/students/get-started/. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

## UF Evaluations Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

## University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code." On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

## Student Support Services

As a distance learning course or program student, you can access the same student support services that on-campus students have. For course content questions, contact your instructor(s).

- For any technical issues you encounter with your course, please contact the UF Computing Help Desk at 342-392-4357. For Help Desk hours, visit http://helpdesk.ufl.edu/ (Links to an external site.).
- For a list of additional student support services links and information, please visit: http://www.distance.ufl.edu/student-services (Links to an external site.)
- In some particular circumstances (when documentation is not available, for instance), we may ask you to contact the Dean of Students Office: **The Dean of Students Office**: 202 Peabody Hall, PO Box 114075, Phone: (352) 392-1261
- The Dean of Students is a resource available to all students when particular circumstances arise that disrupt students' abilities to maintain their academic standing. We encourage students to use this resource if necessary.
- The writing studio is committed to helping University of Florida students meet their academic and professional goals by becoming better writers. Visit the writing studio online at http://writing.ufl.edu/writing-studio/ or in 2215 Turlington Hall for one-on-one consultations and workshops.
- Academic Resources: E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.
- Teaching Center: General study skills and tutoring. Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420.

## Health and Wellness

***U Matter, We Care:*** If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit U Matter, We Care website to refer or report a concern and a team member will reach out to the student in distress.

***Counseling and Wellness Center:*** Visit the Counseling and Wellness Center website 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 the Student Health Care Center website.

***University Police Department*:** Visit UF Police Department website or call 352-392-1111 (or 9-1-1 for emergencies).

***GatorWell Health Promotion Services:*** For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the GatorWell website or call 352-273-4450.