GEOG 213: Planet Earth Laboratory
Section 299
Summer 2025 – Session 2

INSTRUCTOR INFORMATION:

Instructor: Marjan Behnia
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Office Hours: By appointment

CLASS INFORMATION:

Class Meeting Time: Online, through Canvas

COURSE DESCRIPTION

GEOG 213: Planet Earth Laboratory is a stand-alone, hands-on laboratory course that explores fundamental geographic and earth science concepts through direct experimentation and investigation. This lab course is independent of any lecture courses, allowing to explore a range of topics on earth processes, hold extended discussions, and produce strong, in-depth analyses and understanding of process relationships. Because this lab is entirely online, you must be self-motivated and be able to solve problems independently with very little direct assistance.

GEOG 213 is a *Core Curriculum* course. It meets the definition for the Foundational Component Area *Life and Physical Sciences* and addresses the core objectives required in this area. These objectives include: 1) critical thinking, 2) communication (written, oral, and visual), 3) empirical and quantitative skills, and 4) teamwork. For more information, visit: http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/."

LEARNING OUTCOMES

Throughout this course, you will:

- develop an improved understanding and appreciation of fundamental earth science concepts;
- further your critical thinking and empirical and quantitative skills through conceptual application and problem solving;
- develop and practice your communication and teamwork skills, through in-class group interactions, course discussions, written responses in weekly laboratory write-ups, and group presentations; and
- interpret and explore connections between physical processes to explain relationships in the world we live.

We will consider the implications of scale and classification on our assumptions about the physical aspects of Planet Earth, while attempting to make observations across space. Using

examples on campus and across the planet, we will conduct experiments to seek an understanding of some fundamental concepts in physical geography and earth sciences. Using geography as a lens of inquiry, we will focus our studies on the same methods of scientific understanding used by researchers in every field of study.

Required Materials

- Laboratory equipment (purchased separately)
- Scientific or graphing calculator for basic calculations (there are suitable free phone apps)

Required Equipment List

Please make sure that you have purchased the listed equipment prior to the start of the course. This is **your responsibility** as a student in this course. You may choose to find a similar sensor to those listed below or make arrangements with classmates to share equipment. If you are unsure if a similar sensor is appropriate for this course, please reach out to me.

Thermometer/Hygrometer - $7
https://www.amazon.com/dp/B07WCR5Y4B/ref=cm_sw_em_r_mt_dp_SVBJWW0DF7B0F7W3XEDV

Anemometer - $15
https://www.amazon.com/Anemometer-Backlight-Thermometer-Windsurfing-Kite-flying/dp/B082TW1VMW/ref=sr_1_30?keywords=anemometer&qid=1656321524&sr=8-30

IR (Infrared) Thermometer (Note: Look for "not for human") - $13
https://www.amazon.com/dp/B08Q3WW4WD/ref=cm_sw_em_r_mt_dp_55NBKRAYQXJ1HC6G7J3Z

Light-meter - $19
https://www.amazon.com/dp/B0841JQMQ8/ref=cm_sw_em_r_mt_dp_0CYPSAR0FPYXQZYHPB5W

Attendance

Of course, because this lab is online your attendance is not required at any specific time or location. However, you should make an active daily commitment to work on your assigned labs. Labs will be time released on eCampus. The lab will become available at 12:01 AM CST on the start date and will close at 11:59 PM on the day it is due.

You can account for work missed only due to excused absences. For a complete list of acceptable excused absences, please see Section 7.1 of the TAMU Student Rules at http://student-rules.tamu.edu. You must provide written documentation to your TA.

If you must miss a laboratory session due to a university-approved reason listed in Section 7.1 of the TAMU Student Rules, please follow the procedures outline in Section 7.3 of the TAMU Student Rules. This includes advance notification of your absence, if possible, or within two working days of your absence if due to an accident or emergency.

COMMUNICATION

Feel free to ask questions about the lab before or after our lab session, during office hours, or via email. Because of the online nature of this course, most, if not all, communication will take place via email. If you would prefer to meet with me, a Zoom call or in-person office visit can be arranged. Contact your TA with any issues or problems in the lab. Check regularly for updates, information, and content concerning our lab in your official TAMU email address. Check this email regularly. Your correspondence must come from this address. Emails received from a personal email account (Gmail, Yahoo!, MSN, etc.) will not receive a response.

HOW YOUR SUCCESS IN THIS CLASS WILL BE MEASURED

Your grade in this course will consist of two components:

1) *Lab reports*, which include data collection from experiments, maps, graphs, and analysis and synthesis of these data, and so forth will compose 80% of your grade.

2) *Class participation*, which include attendance, in-class discussions, pop reading quizzes, example activities, and presentations, will compose 20% of your grade.

Your final grade will be based on the Texas A&M University grading system:

A: ≥90%, B: 80%–89%, C: 70%–79%, D: 60%–69%, F: <60%

I reserve the right to upwardly adjust grades at the end of the semester if needed.

Your labs will be graded each week using a rubric specific to each lab. It is your responsibility to know what components of your lab write-up are required for each week.

Unless otherwise indicated, labs are due by 11:59 PM on their due date. With regards to citations, a report with no bibliography will receive a 0. Reports without in-text citations will be marked down 20%. Except in cases of university-excused absences, late lab write-ups are not acceptable for credit. Please refer to the student rules for guidelines on acceptable excused absences.

WEEKLY SCHEDULE

WEEK (ASSIGNMENT BECOMES AVAILABLE)	ASSIGNMENT	GRADING	DUE DATE (BY 11:59 PM)
Jul 2 – Jul 8	1. Scientific Method Quiz (10 points) 2. Spatial Thinking Quiz (10 points)	Canvas	
Jul 9 – Jul 15	1. Lab 1, Classification and Scale Quiz (10 points) 2. Lab 1 Document (50 points)	Canvas	
Jul 16 – Jul 22	FIELD WEEK: Data Collection Parts 1 – 3 1. Lab 2, Solar Radiation Quiz (10 points) 2. Lab 2 Document (100 points)	Canvas	
Jul 23 – Jul 29	1. Lab 3, Weather Data Analysis Quiz (10 points) 2. Lab 3 Document (50 points) 3. Mapping Practice (Completion Grade, 10 points) 4. Lab 4, Defining World Climate Quiz (10 points) 5. Lab 4 Document (50 points)	Canvas	
Jul 30 – Aug 5	1. Lab 5, Pyrogeography Quiz (10 points) 2. Lab 5 Document (50 points) 3. Lab 6, Geomorphology Quiz (10 points) 4. Lab 6 Document (50 points)	Canvas	
Aug 8	End of Summer Session II		

TOTAL POINTS AVAILABLE: 440

TURN-IT-IN

Turn-It-In is a repository of text from websites, scientific journal articles and past assignments uploaded to the system which inspects for similarity between the report that you, the student, upload and the millions of sources already within it. If plagiarism is suspected due to the results of Turn-It-In's Similarity Report, sanctions based on the Academic Integrity Policy of this class and of Texas A&M will be enforced.

ACADEMIC INTEGRITY STATEMENT AND POLICY:

Aggie Code of Honor: "An Aggie does not lie, cheat, or steal or tolerate those who do."

We are fortunate to have one of the best honor codes in all higher education. You know the consequences for breaking this code. This course encourages discussion with your peers and outside research into some of the topics we cover will be highly beneficial for your lab write-ups. Please remember that plagiarism, or copying the work of another without attribution, is lying, cheating, and stealing simultaneously. This course has zero tolerance for plagiarizing.

Using any resource (textbook, internet, etc.) without citing that source is plagiarism and will be treated with zero tolerance.

No quotations should be included in lab reports. Repeat occurrences of quotations will receive a grade reduction. All ideas from outside sources must be paraphrased and summarized in your own words.

The Geography Department holds the copyright on the materials in this course. These materials include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are under copyright, you do not have the right to copy the handouts, unless you receive explicit permission.

If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, http://student-rules.tamu.edu, under the section "Scholastic Dishonesty."

AMERICANS WITH DISABILITIES ACT (ADA) POLICY STATEMENT

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Student Services Building or call 979-845-1637. For additional information, visit http://disability.tamu.edu.

USEFUL STUDENT SUPPORT SERVICES:

Academic Success Center 9th Floor, Rudder Tower, 979-458-4900 http://slc.tamu.edu/ University Writing Center 1.214 Sterling C. Evans Library, 979-458-1455 http://writingcenter.tamu.edu/	Student Counseling Service Student Services Building, 979-845-4427 http://www.scs.tamu.edu/ Maps and GIS Library 202 Sterling C. Evans Library, 979-845-1024 http://library.tamu.edu/about/collections/map-gis-collections-services/

CITATION RESOURCES

These sites will help you choose which style of citation you want to use. Each department tends to follow a specific style, I recommend using the style that your department uses. If you are unsure, use either MLA, or APA style citations. There are also several examples of in text citations on each site as well. In general, for in text citations you should follow the (Author's Last Name, Year Published) format.

Texas A&M Library's Citation Guide
http://guides.library.tamu.edu/content.php?pid=222826&sid=1849370

University of Wisconsin's Writing Center Handbook
http://writing.wisc.edu/Handbook/

Purdue University's Citation Guide
https://owl.english.purdue.edu/owl/section/2/

Citation Software

These software packages will allow you to create a library of references you can use to create bibliographies throughout the semester. There are several tutorials that can be found online showing you how to use them.

https://www.zotero.org
http://endnote.com
https://www.refworks.com