George Mason University
College of Science

EVPP 113-2D1 — Ecosphere II: Environmental Science II Lab
Asynchronous (Online)
Spring 2026– 1 credit

CLASS MEETING TIMES: **N/A**

INSTRUCTOR: **Dr. Stephanie Schmidt sschmi11@gmu.edu**

INSTRUCTOR OFFICE HOURS: **Book here at least 12 hours in advance**

TEACHING ASSISTANT: **Anthony Reyes (areyes28@gmu.edu)**

Course Description and Mason Core – Natural Science

This course introduces students to the components and interactions making up Earth's environmental systems. It teaches basic and applied concepts in biological, chemical, physical, and earth sciences in an integrated format that is interwoven with lab and field exercises to complement the EVPP 112 lecture.

EVPP 113 is part of the Mason Core curriculum and, when taken with the lecture EVPP 112, fulfills 1 lab credit for the Natural Science with Lab Mason Core requirement for non-science majors. See more here.

Course Objectives and Mason Core

As a Mason Core Natural Sciences course, students will engage in scientific exploration; foster their curiosity; gain enthusiasm for science; and apply scientific knowledge and reasoning to personal, professional and public decision-making. In particular, this class will challenge students to more fully:

1. Understand how scientific inquiry is based on investigation of evidence from the natural world, and that scientific knowledge and understanding: a) evolves based on new evidence, and b) differs from personal and cultural beliefs.
2. Recognize the scope and limits of science.
3. Recognize and articulate the relationship between the natural sciences and society and the application of science to societal challenges (e.g., health, conservation, sustainability, energy, natural disasters, etc.).
4. Evaluate scientific information (e.g., distinguish primary and secondary sources, assess credibility and validity of information).
5. **(Lab) Participate in scientific inquiry and communicate the elements of the process, including:**
    a. **making careful and systematic observations.**
    b. **developing and testing a hypothesis.**
    c. **analyzing evidence.**
    d. **interpreting results.**

Course Requirements and Expectations

Note: *These do not include EVPP 112 requirements; also consult the EVPP 112 syllabus if you are enrolled.*

- ***Course Materials***: This asynchronous lab requires the **Hands-On Labs LabPaq LP-3956-ES-01 (ISBN: 2818260259995**. This LabPaq includes access **a kit** that will be mailed to you including most physical materials required to complete the lab exercises. **Purchase the kit on HOL/SI using the instructions here:** EVPP 113-2D1 - Required Lab Materials - Spring 2026.

  Note: It is not possible to complete this course without the required materials. If you cannot obtain the required materials in a timely manner due to finances, global location (depending on shipping), etc., you can drop this on-line section of the lab course and:

  a) **take it at a later time** when you can obtain the required materials;
  b) register for the **face-to- face section** of this course by the last add day.

  LabPaqs must be purchased (not necessarily obtained) **by Friday, 1/23 @ 11:59 PM ET**.

- ***Disposal of Kit Materials:*** Students must follow the kit's instructions for disposing of materials based on requirements specific to their locations. Non-consumable components of the kit that do not require proper, safe disposal are the property of the student and may be kept, donated, repurposed, or discarded. Students can bring used kits to Dr. Schmidt for recycling between 5/1 and 5/11.

- ***Supplemental Kitchen, Home, & Office Supplies***: Please ensure access to the list of student-supplied materials and other conditions listed in the materials document.

- ***Technology***: Students should ensure access to **(a)** a web-enabled device; **(b)** a digital camera with photo and video recording capabilities (can be smartphone camera if it has non-potato quality); **(c)** a color printer (if on campus, email Dr. Schmidt with printing help); and **(d) Microsoft 365 apps like Office, Excel, Forms, etc., which can be accessed from logging in to Onedrive.live.com.**

- ***Regular use of Canvas:*** Canvas is a required component of this course. In addition to the web version, use of the app is encouraged.

- ***Grades in Canvas*****:** All official grades for lab work will be recorded in Canvas. To view your grades in Canvas, click on the "Grades" tab in left-side menu. Grades may be changed if it is determined that initial scores were not calculated correctly and/or were not aligned with the rubric.

- ***Course Communication:*** Use of a *@gmu.edu* address is required. Email and Canvas will be the primary modes of course correspondence; please check both daily. Use Outlook email to message the instructor (sschmi11@gmu.edu) and/or the teaching assistant (areyes28@gmu.edu) and include **EVPP 113-2D1** in the subject line. **Please note there are other sections of 113; the section number is required in your email.** If urgent, please flag the email as high importance**.** Responses will be provided within 48 hours (72 hours on weekends).

- ***Deliverables and Late Work***: You are responsible for **timely** submissions of labs and other assignments in the correct format (e.g., Microsoft Form submission, Canvas submission, etc).

Late assignments will not be accepted. 1 module extension per student may be provided if a proactive and respectful email is sent, with a maximum extension of 7 days. Please plan appropriately and do not leave labs until the last day of the module. **Work will not be accepted more than (7 days) after deadlines.** Work will not be accepted after 5/5 5:00 PM ET.

Canvas prerequisite settings will be used to restrict access to labs until startup labs (1, 2, and 3) are completed. Late work will not be excused due to issues with prerequisites, unless it is related to a Canvas technology issue.

- ***No sale of course content***: ALL class content is the property of GMU and/or HOL/SI and may not be duplicated or used for commercial purposes without instructor permission. Failure to comply—e.g., posting items on the internet, to AI, or using them in tutoring—is an honor code violation.
- ***Instruction during University Closings***: Students should assume that the flow of lab work and due dates/times **will remain unchanged** as a result of weather-related university closures / delayed openings / early closures. In the event that assignment due dates/times must be changed, students will be informed of the changes via Canvas and/or email.
- ***Time, Effort, and Planning:*** Since this is a fully on-line, asynchronous course, **there is no official lab period.** However, please be diligent in perform all labs as if you were in a guided environment. Together, the course's labs and video assignment(s) should take about 55-75 hours. Please plan appropriately and note the time requirements of some labs (waiting for 2 days between steps, etc.)
- ***Space concerns for Asynchronous Labs:*** This class requires that you have a space where you can set up your labs, with some of them needing 24-48 hours to be left untouched in between experimental steps. **There are no lab spaces devoted to this section of the course.**
- ***Student Privacy*:** Student email addresses will remain private from classmates, but you will be required to engage with classmates using the Discussion Board.
- ***Academic Honesty***: As members of the Mason community, students pledge to neither give nor receive unauthorized aid while working on/completing **any** work in the source**. Please see the Academic Integrity section for what that means in this course. Notably,** while you may receive some aid from e.g. parents or friends in e.g. experiment setup, it is still a course requirement that you, personally, must engage in each lab experiment from start to finish. In other words, 2 or more people, even those that live in the same household/dorm:
    - cannot use one Lab Paq kit to complete a lab
    - cannot share data, graphs, or other graded responses (including from past semesters)
    - cannot split work between themselves, even if 2 labs are run side by side
    - CAN run 2 labs side by side as long as each student does their own lab and each student answers lab homework questions **individually**

Course Structure and Organization

Students are to complete **~16 interactive labs** that are divided into **several units,** each of which will be available for students only once that unit begins, and for 1 to 4 weeks (see schedule for details). The first 3 ***startup*** labs must be required before additional labs can be completed; the remaining topical labs will be ordered sequentially, but will not require prerequisites beyond the topical labs.

The required LabPaq from HOL/SI will include most required materials, but labs will often require student-supplied household items. A comprehensive list is provided on Canvas and at this link; students should consult individual labs on Canvas to view required materials.

Completion of Labs

Labs will often include several components: explorations, experimentations, and reflections or discussions.

Experimentations: Experimentations will include step-by-step procedures, data collection using Onedrive Excel files owned by Dr. Schmidt, photo and/or video taking and upload, and questions about hypotheses, results, or other steps of the scientific method in either Canvas or Microsoft Forms. Students are expected to take pictures while they complete their labs, which will be uploaded on Canvas and/or Microsoft Forms. Students are also required to record, graph, and analyze data in the provided Onedrive Excel workbooks.

> ***Note:*** Students must adequately complete Excel workbooks **and** media uploads to earn credit on experimentation questions (e.g., questions related to hypotheses, methods, results, theory, etc.)**.**

For at least 1 lab, students will be responsible for recording and submitting a 5-15 minute video to Canvas for other students to watch. Assignment directions will be provided before the end of spring break.

Reflections: Reflections will gauge students' engagement in the scientific method before, during, and after the experimentation, and will require students to refer to data and/or graphs from their Excel workbooks. ***Students cannot earn credit for reflections where Excel workbooks and/or media uploads were not completed.***

> ***Note:*** Labs will be completed using provided Canvas, Microsoft Forms, and/or Onedrive Excel workbook files and/or assignments, and should not be completed on HOL/SI. **Labs completed on HOL/SI, or in a way that ignores specific directions/provided requirements (e.g., using or submitting incorrectly formatted/stored files or file types), will not receive credit.**

Grading and Requirements for Course Completion

While a grade schema is provided on the next page, please note that **a student must meet both of the below requirements to pass the course:**

- Appropriate completion of both (i) the Excel workbook and (ii) all required media for **at least 6 topical labs,** which must be completed per specific lab directions; appropriate completion implies:
    - A fully completed Excel workbook with sensical data and attempts at required graphs
    - Completion of the Excel workbook using the provided file on Dr. Schmidt's Onedrive
    - Required media uploads that include physical notes with a name and date (for each upload)

- (Online Dataset Exploration lab) At least 1 video upload that shows the student's face, voice, and overview of scientific investigation via screensharing for the online dataset exploration lab
    - If students are concerned about sharing a video that includes their face/voice, they can meet with Dr. Schmidt for 10-15 minutes before May 5th to go over their investigation and answer questions about their investigation / video, where their video and audio must be on.

Grade Schema

If students meet all requirements to pass the course, their final grade will be obtained using the weights below.

Lab Grade Component	% of Lab Grade
(On Time) Proof of Purchase	2.5%
Explorations and/or pre-lab assignments	12.5%
Experimentations – Completion of procedure, questions	10.0%
Experimentations – Data Workbooks*	30.0%
Experimentation – Media Uploads*	15.0%
Reflections/Discussions	25.0%
Dataset Exploration Lab Video(s)	5.0%
Total	**100%**

Thresholds for grades are shown below and will be strictly enforced.

A+ : 97.45% – 100+%	**B+ :** 87.45% – 89.45%	**C+ :** 77.45% – 79.45%	**D :** 64.45% – 69.45%
A : 92.45% – 97.45%	**B :** 82.45% – 87.45%	**C :** 72.45% – 77.45%	**F :** < 64.45%
A- : 89.45% – 92.45%	**B- :** 79.45% – 82.45%	**C- :** 69.45% - 72.45%	

Extra Credit

The extra credit opportunities in this course come from optional, extra credit questions/procedures in experiments and/or reflections, and/or other opportunities provided in an "extra credit" module on Canvas. Responses to emails sent to the instructor that request extra credit will provide a copy of this statement.

Learning Accommodations

If you have a documented learning disability or other condition that may affect academic performance you should: 1**) make sure this documentation is on file with Disability Services** (SUB I, Rm. 4205; 993-2474; http://ds.gmu.edu) to determine the accommodations you need; and **2) talk with me to discuss your needs.** I must have your accommodation(s) on file with DS to provide accommodations; accommodations cannot be provided retroactively.

Mental and Physical Health

Physical Health Concerns: If you require accommodations for any health-related issues, please email your instructor **proactively** to receive accommodations. **If you suspect that you are sick or have been directed to self-isolate, please quarantine or get tested and email your instructor a medical note.** If needed, call the Student Health Services to get a note from a nurse; their **phone number** is (703) 993-2831.

***Mental Health Concerns*:** Diminished mental health can interfere with optimal academic performance. However, it is expected that you show responsibility over your health. In pursuit of this, nurture productive habits and behaviors, and do not be afraid to seek out resources that can aid in this nurturing.

Counseling and Physiological Services (CAPS) (http://caps.gmu.edu) provides confidential mental health services, including telehealth meetings, to support the academic success of students. Their free and confidential

psychological services include group counseling, skills-based workshops, case management, crisis consultations, and time-limited individual counseling.

Please contact your instructor about any struggles affecting your coursework, and please email your instructor as early as possible **regarding health concerns and/or falling behind****.

Notice of Mandatory Reporting of Sexual Assault, Interpersonal Violence, & Stalking

George Mason University is committed to providing a learning, living and working environment that is free from discrimination and a campus that is free of sexual misconduct and other acts of interpersonal violence in order to promote community well-being and student success.

We encourage students who believe that they have been sexually harassed, assaulted or subjected to sexual misconduct to seek assistance and support. University Policy 1202: Sexual Harassment and Misconduct speaks to the specifics of Mason's process, the resources, & options available to students.

Please note that, as a faculty member, your instructor and your course Teaching Assistant are designated as ***Responsible Employees* and must report all disclosures of sexual assault, interpersonal violence, & stalking to Mason's Title IX Coordinator per University Policy 1202. In other words: ***We want to support you, but we are obligated to report certain information.***

If you wish to speak with someone confidentially, please contact one of Mason's confidential resources, such as Student Support and Advocacy Center (SSAC; https://ssac.gmu.edu/) at 703-380-1434 or Counseling and Psychological Services (CAPS; https://caps.gmu.edu/) at 703-993-2380. You may also seek assistance from Mason's Title IX Coordinator by calling 703-993-8730, or emailing titleix@gmu.edu.

Diversity and Inclusivity

Diversity entails different viewpoints, philosophies, and perspectives. Students of diverse opinions, backgrounds and practices are encouraged to voice their opinions or perspectives and hear those of others; however, pursuit of knowledge via the scientific method is the focus of this course, and students may be penalized for submitting answers that do not appropriately meet the learning outcomes of the course. Additionally, labs are inherently hands-on, and students cannot substitute activities more aligned with a lecture course to complete this lab. If you feel labs could be more inclusive, do not hesitate to reach out to Dr. Schmidt at sschmi11@gmu.edu.

Common Policies of the University

Please access the GMU Common Policies here.

Academic Integrity

What is academic integrity in this course? When you are responsible for a task, you will perform that task using **your own work**. You will perform individual assignments without collaborating with others and/or using generative artificial intelligence (AI) inappropriately. It is assumed students have a sense of personal responsibility in all course work they complete.

It is expected that students adhere to the George Mason University Honor Code: *"Student members of the George Mason University community pledge not to cheat, plagiarize, steal and/or lie in matters related to academic work."*

Academic Integrity Cont'd

Plagiarism: Anti-plagiarism software will be used in this class for scanning student submissions. Please contact your instructor if you have questions **before you submit an assignment.** Plagiarism includes:

1) Presenting the data, words, work, or opinions of someone else—including yourself (***self plagiarism)***—or AI—as one's own work **without proper acknowledgment**.
2) Borrowing the data, sequence of ideas, arrangement of material, or pattern of thought of someone else, including personal work, or AI—without proper acknowledgment.

If students provide responses that include claims that are not common knowledge, it is thus expected that web links, and optionally citations, are provided for relied-upon sources (which, at times, can be AI).

Fabrication: It is never appropriate to make up (i.e., fabricate) data, sources, or other information. Any student caught fabricating information will be referred to the Academic Standards Office and receive a final grade of HC until the Honor Committee decides on the appropriate sanction.

Use of Artificial Intelligence (AI): In this course, AI of any type is not appropriate unless used as a research or comprehension tool rather than an answer or task completion tool (unless that task is deemed rudimentary, per the course's and/or assignment specified learning objectives). In any permitted use of AI, citing AI is always required, including a link to the transcript. Citing and verifying any information it provides is always a student's responsibility, and students will be held responsible for incorrect, out-of-context, over-simplified, and/or incorrectly cited information, as well as irrelevant, inaccessible, or fake sources provided by AI.

Uses of AI that are **always prohibited** include (a) copying/pasting or uploading course-provided assignments, instructions, procedures, rubrics, etc. into AI; (b) using AI to generate files or text such as data sheets, Excel sheets, reports, or other deliverables for assignments; (c) using AI to make graphs, figures, or tables; (d) using AI to generate text to answer questions and/or directions; (e) using AI to produce and/or analyze data; and (f) using AI to provide references that a student does not verify in terms of their existence and/or relevance.

Other examples may be prohibited if deemed as fabrication and/or cheating per the above stipulations. It is always a student's responsibility to explicitly confirm with their instructor whether AI is permitted for a task.

Consequences of academic misconduct: Failure to adhere to the Honor Code and this section's course stipulations will be deemed a violation of academic integrity. Any individual who becomes aware of a violation is bound by honor to take corrective action. Independent of the extent to which these policies have been violated (e.g., a single answer versus a whole assignment), students will be referred to the Academic Standards Office. Consequences will not be decided by your instructor and may range from a course grade deduction or course failure to University suspension or expulsion. **Please see the Academic Standards website for more information.**

Grading in the age of AI: As it is often impossible and time-consuming to prove inappropriate AI use, it is the instructor's right to create course assignments and rubrics that penalize students based on projected results of inappropriate AI use, even without proof of AI use, if said penalties are aligned with learning outcomes and/or academic integrity. In particular, the instructor has the right to provide a 100% penalty to grades based on aforementioned projections even if an Academic Standards Office Honor Code referral is not made (for example, fake sources, irrelevant sources/citations, incorrect citations, improbable vocabulary / depth of responses, etc.), even if a rubric with such penalties are not made available ahead of time.

Additionally, the instructor has the right to request follow-up zoom or in-person meetings where students explain the meaning behind certain answers and vocabulary used when patterns aligned with AI emerge in responses, where failure to meet and/or express understanding of responses may result in a 100% penalty or Academic Standards Office Honor Code referral.