

EVPP 113 - Ecosphere: Environmental Science II - Lab - Spring 2022

Section 2D2

On-Line, Asynchronous Lab Course

1/24/22

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I. Instructor Contact Information**A. Lab Instructor Contact Information**Course Coordinator and Lab Instructor:

Dr. Kim Largen

Office: No routine physical office presence due to remote work during the Spring 2022

Phone: No routine contact available via office phone due to remote work during Spring 2022

Mailbox: No routine access to physical mailbox due to remote work during Spring 2022

Email: klargen@gmu.edu

Office Hours: All office hours will be conducted virtually via periodic sessions on variable days at variable times utilizing Blackboard Collaborate Ultra. Weekly office hours will be announced and posted on Blackboard at the beginning of each week (no later than Monday of each week).

II. University-level Course Information**A. Course Administrative Details**

Title: "The Ecosphere - Introduction to Environmental Science II-Lab"

Number: EVPP 113

Sections: 2D2

Credits: 1 credit-hour.

Meeting Days and Times: This is a fully on-line, asynchronous course.

Location: Not applicable since this is a

fully on-line, asynchronous course.

Blackboard: One Blackboard page (titled "EVPP 113 Lab - On-Line - Spring 2022") will serve the course.

B. Course Prerequisites

There are no prerequisites for this course.

C. Course Description

Studies components and interactions that make up natural systems of our home planet. Teaches basic concepts in biological, chemical, physical, and earth sciences in integrated format with lecture, laboratory, and field exercises.

This is an environmental science course, not an environmental studies course.

D. Mason Core Learning Objectives Fulfilled by the Course

EVPP 113 is an environmental science lab-only course which fulfills, along with the EVPP 112 lecture course, the Mason Core natural science requirements for non-science majors.

The Mason Core - Explorations - Natural Science courses engage students in scientific exploration; foster their curiosity; enhance their enthusiasm for science; and enable them to apply scientific knowledge and reasoning to personal, professional and public decision-making.

To achieve these goals, students will:

- Participate in scientific inquiry and communicate the elements of the process, including:

- making careful and systematic observations.
- developing and testing a hypothesis.
- analyzing evidence.
- interpreting results.

III. Course Materials

A. Required

The following are required for this lab course:

- **Hands-On Labs LabPaq LP-3856-ES-01** (ISBN: 2818260259995)

Purchase the required materials (Hands-On Labs LabPaq LP-3856-ES-01) from the GMU bookstore. This LabPaq includes access to all instructional materials (via the Hands-On Labs on-line platform) and most physical materials (via the physical kit that will be shipped to you) required to complete the lab exercises.

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 or your global location (check with the bookstore as to whether the physical kit can be shipped to you if you are outside the US), you should drop this on-line section of the lab course and either take it at a later time when you can obtain the required materials **OR register for one of the face-to-face sections of this course by the last add day, 1/31/22.** If that is what you need to do, please note

that the EVPP 112 lecture course can be taken separately from the EVPP 113 lab course. So, if you need to take the EVPP 113 course during a different semester, there is no need to drop the EVPP 112 lecture course this semester.

Before or after purchasing (from the GMU bookstore) your LabPaq, create an account on the Hands-On Labs/Science Interactive (HOL/SI) on-line platform. To create an account, go to the menu on the left side of the Blackboard page and click on the use the link titled **"Hands-On Labs/Science Interactive (HOL/SI) - Account Creation Page and Student Login Page"** and in the area that then appears to the right, click on the link titled **"Hands-On Labs/Science Interactive (HOL/SI) - ACCOUNT CREATION page (use this page when you first create your HOL/SI account)"**. This leads to the HOL/SI platform where instructions will be provided for creating an account. Students must use their GMU email when creating the HOL/SI account.

Upon creation of their HOL/SI account (with or without having purchased the LabPaq), all students can access and complete the two start-up labs (titled "Getting Started" and "Laboratory Safety"). However, to access all labs beyond the start-up labs, students must purchase their

LabPaq **and** input into the HOL/SI platform the kit code that is on the bottom of the box that contains the physical kit. Students who purchase their LabPaq in person at the GMU bookstore will be able to leave (to the extent that supplies last) with the physical kit in hand. The GMU bookstore will ship the kit to students who purchase the LabPaq from a remote location (or if the kit must be backordered). Check with the bookstore as to whether the physical kit can be shipped to you if you are outside the US. If your kit is being shipped to you, there will be a lag time between purchasing the LabPaq and the shipping of the kit. Students waiting for the arrival of their kit should post to the "LabPaq proof of purchase" folder in the module 1 content area of Blackboard a photo or screen shot of their receipt from the bookstore (all information except name, date, LabPaq reference and purchase price can be blacked out). Based on that post, the HOL/SI company will be informed of the student's purchase and the labs beyond the two start-up labs will be unlocked so that students can work on the next three labs (which do not require materials from the physical kit) before their kit arrives. A summary of these instructions is posted in Blackboard.

If a student does not purchase the required LabPac by 2/1/22 (the day after last day to add a course), then no due date extensions will be given for labs that the student cannot complete by the due date due to not having the kit. See section V.C. below for details.

Disposal of kit materials is the responsibility of each student. Students must follow the instructions in the kit for disposing of kit 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.

• **Access to the following:**

- **web-enabled device** for the purposes of 1) accessing lab activity instructions and 2) completing and submitting lab work.
- **digital camera** (or camera on a smartphone or tablet) for the purpose of photographing various components of experiments and experimental results which will be submitted as part of the graded work.
- **color printer** for the purpose of printing out templates and guides utilized in lab exercises.
- **stream, pond, or puddle** for the purpose of collecting an environmental water sample.

- **stove or hot plate** for the purpose of heating water.
- **refrigerator** for the purpose of cooling solutions.
- **freezer** for the purpose of obtaining ice.
- **direct sunlight** for the purpose of providing a source of heat or...
- **desk lamp with either an incandescent or heat lamp bulb** for the purpose of providing a source of heat.
- **Additional materials that must be supplied by the student** to complete lab exercises, many of which are already available in their homes or can be purchased at many common stores, such as (a list is provided at the beginning of each lab exercise):
 - Aluminum foil
 - Aluminum pie plate
 - Baking soda
 - Bleach, household
 - Books, thick, 2-6, to use in setting up an apparatus
 - Candle, votive, small pillar, or jar type
 - Coffee mug (or drinking glass)
 - Colored pencils or highlighters
 - Container, 2 Cooking oil (vegetable, canola, olive, or other)
 - Dish soap
 - Garbage bags, 2
 - Isopropyl (rubbing) alcohol
 - Jar, large (or drinking glass)
 - Matches (or lighter)
 - Measuring cup
 - Measuring spoons (1/4 teaspoon, 1/8 teaspoon, 1 teaspoon, 1 tablespoon)
 - Notebook
 - Paper towels
 - Paper, 8.5"x11", white, ~15-20 sheets

- Paper, card stock, white, 8.5"x11" (or similar white product such as cardboard, poster board, foam core board)
- Pen or pencil
- Penny coins (50)
- Plastic wrap
- Rubber band
- Saucepan (if using stove or hot plate method of heating water)
- Scissors
- Spoon, metal
- Sunscreen, commercial
- Tape, clear
- Thermometer, analog, 2
- Timer (or timer function on smart phone)
- Vinegar, white
- Water bottle, reusable
- Water, bottled drinking
- Water, distilled, ~1 liter
- Water, tap

IV. Course Structure

A. Lab Class Format

1. Execution of Labs

Students will utilize the required LabPak (instructional materials on the HOL/SI on-line platform, materials from the physical kit, and student-provided materials) to execute on their own, remotely and without direct supervision, the labs associated with the course. A lab (referred to as a "lesson" on the HOL/SI platform) consists of one or more exercises related to one or more environmental science topics or concepts. By carrying out these labs, students obtain experience with the use of materials, techniques, and equipment related to the pursuit of environmental science as well as exposure to the scientific method and the benefits

and challenges associated with its use.

To complete the labs, students must log in to the HOL/SI on-line platform (once the HOL/SI account is set-up students can enter the HOL/SI platform via links in the course Blackboard page), where they will read background information and follow the instructions to complete the labs and submit the associated work that will become part of their grade for this course. There are 15 labs - basically one for each week of the regular 15-week fall or spring semester. To provide some flexibility in the execution of the labs, the 15 labs are distributed across four modules, with all of the labs for a given module being due at the same time. The distribution of the 15 labs across the four modules and the due date and time for each module is as follows:

- **Module 1 Labs - Due 2/17/22** by 11:59pm Eastern:
 - Lab 1: Getting Started
 - Lab 2: Laboratory Safety
 - Lab 3: Human Population
 - Lab 4: Radioactive Decay
- **Module 2 Labs - Due 3/21/22** by 11:59pm Eastern
 - Lab 5: Alternative Energies
 - Lab 6: Renewable Solar Energy
 - Lab 7: Water Quality (requires a 48-hour incubation period)
 - Lab 8: Dissolved Oxygen

- **Module 3 Labs - Due 4/13/22** by 11:59pm Eastern
 - Lab 9: Streams and Groundwater
 - Lab 10: Properties of Soils
 - Lab 11: Acid Rain
 - Lab 12: Ultraviolet Radiation and Sunscreen
- **Module 4 Labs - Due 5/7/22** by 11:59pm Eastern
 - Lab 13: The Greenhouse Effect
 - Lab 14: The Scientific Method
 - Lab 15: Carbon Footprint and Sustainability (*requires 5 days of data collection*)

B. Lab Class Period

Since this is a fully on-line, asynchronous course, there is no official "lab period." However, it is important to note that in the face-to-face setting, this course requires ~37 hours of class time plus a similar amount of out-of-class time. It is estimated that this asynchronous, on-line version of the course will require approximately 60 hours of work. This is just an approximation as some students will require less time and others will require more time.

C. Lab Schedule

The [lab schedule](#) can be found at the end of this syllabus and is posted on the lab Blackboard page. It indicates which labs are associated with each module, the estimated time to complete each lab, the point value for each lab, whether each lab is a start-up or topical lab, whether it is eligible to be dropped

as part of the 70 points that are dropped, whether or not the kit materials are required in order to complete the lab, and the due date for each lab.

V. Grading and Coursework

A. Relation of Lecture and Lab Courses

EVPP 113 is a stand-alone lab course and the grade for this course will be based solely on 515 points derived from your performance on the labs. Some students are taking EVPP 113 as well as the stand-alone lecture course EVPP 112 to satisfy a Mason Core natural science lab science requirement. If you are taking EVPP 113 along with EVPP 112, please note that the material in lecture and lab will **not** be in sync and the required topical background information necessary to understand the lab activities will be presented in the instructional materials associated with each lab exercise.

While the concepts addressed in the lab activities are also addressed in the lecture course, the order in which the lab activities are arranged is based on a number of factors including: 1) placing labs that don't require kit materials at the beginning of the semester so that delays in receiving the kit do not prevent students from completing the lab work by the due dates, 2) distributing the work fairly evenly across the semester, and 3) scheduling labs that require field work during times when weather conditions are likely to be most favorable.

Final Course Point Total	Final Course Average	Final Course Grade	Grade Points
494 - 515	96% - 100%	A+	4.00
463 - 493	90% - 95.9%	A	4.00
453 - 462	88% - 89.9%	A-	3.67
443 - 452	86% - 87.9%	B+	3.33
412 - 442	80% - 85.9%	B	3.00
402 - 411	78% - 79.9%	B-	2.67
391 - 401	76% - 77.9%	C+	2.33
361 - 390	70% - 75.9%	C	2.00
350 - 360	68% - 69.9%	C-	1.67
309 - 349	60% - 67.9%	D	1.00
≤ 308	≤ 59.9%	F	0

B. Course Workload

A general rule of thumb for the amount of time that will be required outside of class time for a course is 1 to 3 hours per credit hour (1 hour/credit hour for "easy" courses, 3 hours/credit hour for "difficult" course). Whether or not this course is "easy", "moderate" or "difficult" depends on each student's background, interests, aptitude, study skills, etc.

The amount of class time for this course in the face-to-face setting would be a total of ~37 hours. Based on the above rule of thumb, depending on where you fall within the spectrum of finding the course easy or difficult, a minimum time commitment of ~74 could be needed for the 1-credit-hour face-to-face lab version of this course.

Based on estimated completion times for each lab that are provided by HOL/SI and the time required to read the syllabus and learn one's way around the Blackboard course page, it is estimated that this asynchronous, on-

line version of this 1-credit-hour course will require approximately 55 hours of work. This is just an approximation as some students will require less time and others will require more time.

C. Lab Work and Grade Components

The entire grade for EVPP 113 will be based on 515 points derived from your performance on the labs. Table 1 shows the grading scale that will be used to determine your final grade for this 1-credit-hour lab course.

Lab Grade Component	# Points Toward Lab Grade	% of Lab Grade
Two start up labs, worth a total of 55 points, no points can be dropped	55	10.68%
13 topical labs, variable points, worth a collective total of 530 points, only 460 points will be counted	460	89.32%
Total	515	100%

The lab grade will be based on the performance on the labs. Table 2 summarizes what portion of the lab grade will be determined by each of the components of the lab work.

Each lab consists of one or more exercises and includes a single graded submission that consists of preliminary questions, data, competency questions, and extension questions.

There are 15 labs ("lessons" per the HOL/SI website) which have been divided into four modules. All the labs ("lessons") in a given module are due by 11:59pm Eastern on the last day of the module (see the schedule at the end of

this syllabus). This provides students with flexibility to manage and schedule their own lab work in the context of this asynchronous, on-line course.

Of the 15 labs, two labs are considered start-up labs (see section IV.C.1. for more information on start-up labs) and 13 labs are considered topical labs (see section IV.C.2. for more information on topical labs).

LATE LAB SUBMISSIONS WILL NOT BE ACCEPTED, except as noted below:

- **Labs 1-5:**

No due date extensions will be given for labs 1-5. No materials from the physical kit are required to complete any of the first five labs (which consist of the two start-up labs and the first three topical labs). Even though no materials from the kit are required to complete the first five labs, the kit code from the bottom of the kit box must be input into the HOL/SI platform to unlock all labs beyond the first two start-up labs (as noted earlier, the first two labs can be completed even before the students purchase the LabPaq, once they have created their free HOL/SI on-line account). If students have purchased their LabPaq, have completed labs 1-2, but are waiting for the arrival of the physical kit (which contains the required kit code to unlock labs beyond lab 2), HOL/SI will be asked to unlock all labs beyond the labs beyond lab 2 upon being informed that a student has purchased their LabPaq. In this case, a student can

post to the "LabPaq proof of purchase" folder in the module 1 content area of Blackboard a copy of the GMU bookstore receipt showing the student's name, date of purchase, kit reference and purchase price (other information can be blacked out) and that information will be provided to the HOL/SI company so that all labs beyond lab 2 can be unlocked and the student can continue working on labs that don't require kit materials while they wait for their kit to arrive.

The two start-up labs ("Getting Started" and "Laboratory Safety") **and** the first three topical labs ("Human Population," "Radioactive Decay," and "Alternative Energies") **must still be submitted on time** (2/17/22 for all module 1 labs and 3/21/22 for the 1st module 2 lab) since 1) students are expected to purchase their LabPaq no later than 2/1/22, 2) the start-up labs can be completed even before the materials are purchased, 3) HOL/SI will be asked to unlock all labs beyond the start-up labs upon submission of LabPaq proof of purchase, and 4) the first three topical labs do not require materials from the physical kit.

- **Labs 6-8:**

Labs 6-8 are part of module 2 with a due date of 3/21/22 and these are the first labs that require materials from the physical kit. Due date extensions will be granted for these labs **IF** a student is able to show that they 1) purchased their

LabPaq no later than 2/1/22 (by posting to the "Labpaq proof of purchase" folder in the module 1 content area a copy of the GMU bookstore receipt showing name, date, LabPaq reference, and price, all other information can be blocked out) and 2) did not receive their physical kit by the end of 3/1/22 (by posting to the "kit shipment tracking" folder in the module 2 content area a copy of the shipment tracking information that shows the students name and the arrival date of the kit).

- **Labs 9-15:**

No due date extensions will be given for module 3 labs (labs 9-12) which are due 4/13/22 or for module 4 labs (labs 13-15) which are due 5/7/22 because LabPaqs purchased no later 2/1/22 should result in kits arriving in time to complete the module 3 and module 4 labs by the due dates.

1. **Start-up Labs** (55 of the 515 possible points, or 10.68%)

There are two start-up labs (labs 1-2), titled "Getting Started" and "Laboratory Safety." Neither of these labs require materials from the physical kit and both labs can be accessed and completed even before the purchase of the LabPaq after creating an account on the HOL/SI platform using the "Hands-On Labs/Science Interactive Login" link in the content area of the course Blackboard page.

The purpose of the "Getting

Started" lab is to instruct you in how to utilize the HOL/SI on-line platform. The purpose of the "Laboratory Safety" lab is to ensure that you have received the training you need to execute all labs safely. The two start up labs are worth a total of 55 points. The two start-up labs must be completed before any of the topical labs may be completed and due to this requirement and their importance, the points associated with the start-up labs are not eligible to be part of the 70 points worth of lab work that will be dropped when the final grade is calculated (in other words, the grades on the two start-up labs cannot be dropped). Failure to complete the start-up labs will not only result in the loss of 55 points that cannot be absorbed in the 70 points that will be dropped from the topical lab grades, it will also prohibit you from being able to complete any of the topical labs until the start-up labs are completed, possibly leading to missed due dates. If you miss the due date for the start-up labs, you will receive zeros for the labs but you will still have to complete them in order to move forward with the topical labs and you will not receive credit for completing them.

As noted in section V.C., no extensions on the due date for the start-up labs will be given since they can be accessed and completed even before the purchase of the LabPaq and do not require any materials

from the physical kit so there is no reason for them not to be completed on time.

2. Topical Labs (460 of the 515 possible points, or 89.32%)

There are thirteen "topical" labs (labs 3-15). The first three of the topical labs (labs 3-5) do not require materials from the physical kit but will not be accessible until the kit code from the bottom of the kit box the kit is input into the HOL/SI platform. As explained in sections III.A. and V.C., if the physical kit has not been received by the time a student is ready to begin working on the topical labs, it will be arranged for the labs to be unlocked by HOL/SI upon the student's submission of their LabPaq proof of purchase to Blackboard. Labs 6-15 require materials from the physical kit.

The purposes of the topical labs include: 1) presenting topical environmental science concepts, 2) providing experience with the use of materials and techniques related to the pursuit of environmental science, and 3) providing exposure to the scientific method and the benefits and challenges associated with its use. The thirteen topical labs are worth a total of 530 points. However, when the final course grade is calculated a maximum of 460 points will be counted. This is similar to the idea of dropping the lowest grade on one to two labs but is handled in this manner (counting only 460 of 530 topical lab points) due to the fact that the

number of points per lab varies.

As noted in section V.C., 1) no extensions will be given on the due date for the topical labs 3-5 since they do not require materials from the physical kit and will be unlocked upon submission of LabPaq proof of purchase showing purchase of the kit no later than 2/1/22, 2) due date extensions will be given for labs 6-8 only upon submission of LabPaq proof of purchase showing purchase no later than 2/1/22 **and** kit shipment tracking that shows kit was delivered after 3/1/22, and 3) no due date extensions will be given for labs 9-15 since kits associated with purchase of the LabPaq no later than 2/1/22 should arrive in time to complete these labs by their due dates.

VI. Course Policies

A. Email Expectations

Students **must** use their [MasonLive email](#) account to receive important University information, including messages related to this class (see also "student privacy" below in section VII.D.). The instructor will **not** open emails if the sender is not identifiable/recognizable. The instructor will attempt to respond to emails within 48 hours but students must recognize that the instructor is not on-line 24/7. Clearly stating the purpose of the email in the subject line and the **course you are in** will help the instructor provide a faster response to emails. The instructor will **not** give priority to emails requesting

information that is clearly available in the syllabus or on Blackboard, and the response to such emails may be "see syllabus."

B. Instructional Continuity in the Event of University Closings

Since this course is in the format of an asynchronous, on-line course that is partially self-paced, most university closures or delayed openings or early closings due to inclement weather will not change assignment due dates and times. Students should assume that the flow of lab work and lab assignment due dates/times will be **unchanged** as a result of routine, 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 Blackboard.

C. Grades in Blackboard

1. Grades Recorded in Blackboard

All official grades for lab work will be recorded in the Blackboard gradebook. It is the student's responsibility to monitor the grades recorded in Blackboard and to inform the lab instructor in a timely manner of any perceived discrepancies. To view your grades in Blackboard, click on the "My Grades" tab in the menu on the left side of the Blackboard page. The following grades will be recorded for lab in Blackboard:

- Non-grade columns:

- LabPaq proof of purchase: This column is associated with the folder to which students will post proof of purchase of their LabPaq if they need to have labs unlocked before the physical arrives. This column will not receive a grade and is not part of the course grade.
- Kit shipment tracking: This column is associated with the folder to which students will post documentation of their kit shipment tracking if their kit arrives after 3/1/22 and they need due date extensions for labs 6-8 of module 2. This column will not receive a grade and is not part of the course grade.
- Lab grade columns:
 - Start-up labs: There will be a grade column for each of the two start up labs. The grades will be recorded as the number of points received rather than a percentage grade.
 - Topical labs: There will be a grade column for each of the 13 topical labs. The grades will be recorded as the number of points received rather than a percentage grade.
- Total columns:
 - There will be two "total" columns, one for each type of lab:
 - Start-up lab total (max of 55): This column will show the total points received on the two start-up labs

combined. The grades for the start-up labs can NOT be dropped.

- Topical lab total (max of 460): This column will show the total points received on the 13 topical labs combined. Since only 460 points from the topical lab work will count, the total in the column could exceed 460. However, when your final grade is calculated no more than 460 points from this column will be utilized.

WARNING: It is important to note that Blackboard is NOT set up to calculate student's overall lecture or course grade at any point during the semester. Blackboard creates its own "total" column into which every grade entered into Blackboard is added, regardless of the purpose of the values entered. Every effort will be made to eliminate or hide the Blackboard-generated "total" column but if that does not work, students must **IGNORE THE BLACKBOARD-CREATED "TOTAL" COLUMN.**

It is the student's responsibility to understand the preceding paragraph. Failing to understand the preceding paragraph could result in a student mistakenly concluding that their lab grade (or course grade) is much higher than it actually is.

It is also the student's responsibility to inform the lab instructor of any perceived errors in the grades recorded in Blackboard.

VII. University Policies

A. Academic Integrity

EVPP 113 lab is governed by the GMU Honor Code. Please refer to the [Office of Academic Integrity](#) website for a full description of the code and the honor committee process. All course work is expected to be completed INDIVIDUALLY. Copying work on any lab from any source is considered **cheating** and a violation of the Honor Code. If an instructor discovers that two or more students have submitted work that is partially or entirely identical, all students involved will be reported to the Honor Committee with a recommended sanction of a zero on the lab. Violations of the Honor Code will not be tolerated.

Another aspect of academic integrity is the free exchange of ideas. It is expected that all aspects of this class will be conducted with civility and respect for differing ideas, perspectives, and traditions. When in doubt about any aspect of academic integrity as it pertains to this course, please ask for clarification.

B. Disability Accommodations

If you have a learning or physical difference that may affect your academic work, you will need to furnish appropriate documentation to the Office of Disability Services. If you qualify for accommodation, the ODS staff will give you a form that details your accommodations and you must provide your instructor with a copy of that form. In addition to providing your

instructor with the appropriate form, please take the initiative to discuss your accommodations with your instructor at the beginning of the course, and as needed during the semester. If you have contacted the Office of Disability Services and are waiting to hear from a counselor, please inform your instructor. For more information on disability accommodations, visit the [Disability Services](#) website.

C. Diversity

The following is George Mason University's "[Diversity Statement](#)" from the [Stearns Center for Teaching and Learning](#) website:

"George Mason University promotes a living and learning environment for outstanding growth and productivity among its students, faculty and staff. Through its curriculum, programs, policies, procedures, services and resources, Mason strives to maintain a quality environment for work, study and personal growth.

An emphasis upon diversity and inclusion throughout the campus community is essential to achieve these goals. Diversity is broadly defined to include such characteristics as, but not limited to, race, ethnicity, gender, religion, age, disability, and sexual orientation. Diversity also entails different viewpoints, philosophies, and perspectives. Attention to these aspects of diversity will help promote a culture of inclusion and belonging, and an environment where diverse opinions, backgrounds and practices have the opportunity to be voiced, heard and respected.

The reflection of Mason's commitment to diversity and inclusion goes

beyond policies and procedures to focus on behavior at the individual, group and organizational level. The implementation of this commitment to diversity and inclusion is found in all settings, including individual work units and groups, student organizations and groups, and classroom settings; it is also found with the delivery of services and activities, including, but not limited to, curriculum, teaching, events, advising, research, service, and community outreach.

Acknowledging that the attainment of diversity and inclusion are dynamic and continuous processes, and that the larger societal setting has an evolving socio-cultural understanding of diversity and inclusion, Mason seeks to continuously improve its environment. To this end, the University promotes continuous monitoring and self-assessment regarding diversity. The aim is to incorporate diversity and inclusion within the philosophies and actions of the individual, group and organization, and to make improvements as needed."

D. Student Privacy

Student privacy is governed by the Family Educational Rights and Privacy Act (FERPA). Students must use their MasonLive email account to receive important University information, including messages related to this class (see also "email expectations" above in section VI.C.). See the website for [Office of The University Registrar](#) for more information.

E. Student Support Resources

There are many resources available to students at George Mason University to help facilitate student

success. Some of those resources and links to the associated websites are provided below:

- [University Catalog](#)
- [University Policies](#)
- [Counseling and Psychological Services](#)
- [INTO George Mason](#) (program for international students)
- [Learning Services](#)
- [University Career Services](#)
- [University Writing Center](#)

F. Emergency Preparedness

George Mason University is committed to maintaining a safe learning environment. All members of the academic community should be familiar with the basic emergency procedures for a variety of situations including severe weather, medical emergencies, and workplace and campus violence. Students are strongly encouraged to register their mobile phone to receive emergency notifications from [Mason Alert](#) in the event of a campus emergency. Please review the [Emergency Preparedness Guides](#) website.

G. Safe Return to Campus Requirements

All students taking courses with a face-to-face component are required to follow the university's public health and safety precautions and procedures outlined on the university Safe Return to Campus webpage (<https://www2.gmu.edu/safe-return-campus>). Similarly, all students in face-to-face and hybrid courses must also complete the Mason COVID Health Check daily, seven days a week. The COVID Health Check system

uses a color code system and students will receive either a Green, Yellow, or Red email response. **Only students who receive a "green" notification are permitted to attend courses with a face-to-face component.** Faculty are permitted to ask you to show them that you have received a Green email and are thereby permitted to be in class.

Students are required to follow Mason's current policy about facemask-wearing, which can be found at <https://www.gmu.edu/safe-return-campus/personal-and-public-health/face-coverings>.

Lab Schedule

Module	Lab Name	Requires access to HOL platform	Requires materials from lab kit to complete	Start-Up Lab	Requires student-supplied materials*	Topical Lab	Eligible to be part of 70 points dropped	Estimated completion time (hrs)	Points	Due Date/Time (Eastern)
1	1. Getting Started	✓	x	✓	x	x	x	3.0	15	2/17/22 by 11:59pm
	2. Laboratory Safety	✓	x	✓	x	x	x	2.0	40	
	3. Human Population	✓	x	x	x	✓	✓	3.0	35	
	4. Radioactive Decay	✓	x	x	✓	✓	✓	4.0	45	
Module 1 Total =								12.0	135	
2	5. Alternative Energies	✓	x	x	x	✓	✓	3.5	40	3/21/22 by 11:59pm
	6. Renewable Solar Energy	✓	✓	x	x	✓	✓	3.0	30	
	7. Water Quality [†]	✓	✓	x	✓	✓	✓	4.0	45	
	8. Dissolved Oxygen	✓	✓	x	✓	✓	✓	3.0	30	
Module 2 Total =								13.5	145	
3	9. Streams and Groundwater	✓	✓	x	✓	✓	✓	4.0	45	4/13/22 by 11:59pm
	10. Properties of Soils	✓	✓	x	✓	✓	✓	3.0	40	
	11. Acid Rain	✓	✓	x	✓	✓	✓	4.0	45	
	12. Ultraviolet Radiation and Sunscreen	✓	✓	x	✓	✓	✓	3.5	40	
Module 3 Total =								14.5	170	
4	13. The Greenhouse Effect	✓	x	x	✓	✓	✓	3.0	30	5/7/22 by 11:59pm
	14. The Scientific Method	✓	x	x	✓	✓	✓	6.0	60	
	15. Carbon Footprint and Sustainability ^{††}	✓	✓	x	✓	✓	✓	4.0	45	
Module 4 Total =								13.0	135	

* = checked only if student-supplied materials are more than pencil/pen and paper

✓ = yes

x = no

† = requires a 48-hour incubation period

†† = requires 5 days of data collection