

Course Change Request

New Course Proposal

Date Submitted: 11/06/18 4:51 am

Viewing: **EVPP 108 : Ecosphere - Introduction to Environmental Science I-Lecture**

Last edit: 11/06/18 4:51 am

Changes proposed by: ykih

Are you completing this form on someone else's behalf?

In Workflow

1. **ESP Chair**
2. **SC Curriculum Committee**
3. SC Associate Dean
4. Assoc Provost- Undergraduate
5. Registrar-Courses
6. Banner

Approval Path

1. 11/06/18 2:55 pm
A. Alonso Aguirre (aaguirr3):
Approved for ESP Chair

Yes

Requestor:

Name	Extension	Email
Alonso Aguirre	37590	aaguirr3@gmu.edu

Effective Term: Spring 2019

Subject Code: EVPP - Environmental Science & Policy

Course Number:

108

Bundled Courses:

Equivalent Courses:

Catalog Title: Ecosphere - Introduction to Environmental Science I-Lecture

Banner Title: Ecosphere-Intro Env Sci 1-Lect

Will section titles vary by semester? No

Credits: 3

Schedule Type: Lecture

Hours of Lecture or Seminar per week: 3

Repeatable: May be only taken once for credit, limited to 3 attempts (N3)

Max Allowable Credits:
3

Default Grade Mode: Undergraduate Regular

Recommended Prerequisite(s):
none

Recommended Corequisite(s):
none

Required Prerequisite(s) / Corequisite(s) (Updates only):
none

Registrar's Office Use Only - Required Prerequisite(s)/Corequisite(s):

And/Or	(Course/Test Code	Min Grade/Score	Academic Level)	Concurrency?

Registration Restrictions (Updates only):

Registrar's Office Use Only - Registration Restrictions:

Field(s) of Study:

Class(es):

Level(s):

Degree(s):

School(s):

Catalog Description:

EVPP108 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.

Justification:

Decoupling of the lecture and lab portions of EVPP 110 so that students seeking a 3-credit hour natural science course may take only the lecture portion of the course.

Does this course cover material which crosses into another department? No

Learning Outcomes:

1. to understand how scientific inquiry is based on investigation of evidence from the natural world, and that scientific knowledge and understanding:
 - evolves based on new evidence.
 - differs from personal and cultural belief.
2. to recognize the scope and limits of science;
3. to 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. to evaluate scientific information (e.g., distinguish primary and secondary sources, assess credibility and validity of information).

Attach Syllabus

[EVPP 108 Syllabus.pdf](#)

Additional Attachments

Staffing:

Dr. Kim Largen

Relationship to Existing Programs:

EVPP 108 fulfills 3-credits of the Mason Core non-lab natural science requirements for non-science majors. EVPP 108 (3-credit lecture) and the associated EVPP 109 (1-credit lab) can be used to fulfill a Mason Core 4-credit lab natural science requirement for non-science majors.

Relationship to Existing Courses:

EVPP 109 (Ecosphere: Introduction to Environmental Science 1-Lab) is a 1 credit lab course separated from EVPP 110 (4 credits, lecture + lab)

EVPP 108 (Ecosphere: Introduction to Environmental Science 1-Lecture) is 3 credit lecture course separated from EVPP 110

**Additional
Comments:**

**Reviewer
Comments**

**EVPP 108 – Ecosphere - Introduction to Environmental Science I –
Lecture Proposed Syllabus**

I. University-level Course Information

A. Course Administrative Details

Title: “Introduction to Environmental Science I – Lecture Only”

Number: EVPP 108

Section: 001

Credits: This is a lecture-only course worth 3 credit-hours

Meeting Days and Times: TBD

Location: TBD

Blackboard: Blackboard will be utilized in this course.

B. Course Prerequisites

There are no pre-requisites or co-requisites 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.

D. Mason Core Learning Objectives Fulfilled by the Course

EVPP 108 fulfills 3-credits of the Mason Core non-lab natural science requirements for non-science majors. EVPP 108 (3-credit lecture) and the associated EVPP 109 (1-credit lab) can be used to fulfill a Mason Core 4-credit lab natural science requirement for non-science majors.

The Mason Core natural sciences 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:

- Understand how scientific inquiry is based on investigation of evidence from the natural world, and that scientific knowledge and understanding:
 - evolves based on new evidence.
 - differs from personal and cultural belief.
- Recognize the scope and limits of science.
- 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.).
- Evaluate scientific information (e.g., distinguish primary and secondary sources, assess credibility and validity of information).

II. Course Materials

A. Required

1. Lecture

The following are **required** for the lecture portion of this course:

- a. Access to a web-enabled device **during** lecture class for the purpose of answering graded questions and participating in graded in-class activities that will contribute to the course grade. Students should plan on bringing to every lecture class a web-enabled laptop, notebook, tablet, or smart phone.
- b. Access to Modified Mastering Environmental Science **and** the **electronic** version (etext) of the textbook *Environment: The Science Behind the Stories*, 6th edition.

III. Course Structure

A. Lecture Class Format

1. Partially Flipped Classroom

This class will operate under a “partially flipped” structure. This means that approximately 50%-75% of the lectures will be delivered in the format of pre-recorded, voiced-over PowerPoint presentations posted to the lecture portion of the course Blackboard page that students will be required to view outside of the regular class period so that more of the lecture class time may be devoted to active learning.

2. PowerPoint Presentations

Many lecture class periods will be devoted to covering material in the traditional format of the instructor delivering PowerPoint-based lectures. When a PowerPoint-based lecture is delivered in class, the PowerPoint presentation itself will be available on Blackboard. The PowerPoint presentation will also be available after the class in which the PowerPoint was covered and will often be available in advance of the class in which it will be covered.

Some PowerPoint lectures will be recorded in a voice-over/screen-capture format. It will be the student’s responsibility to view these outside of the regular lecture class period and students will be responsible for the material in the recorded presentations. These recorded presentations will be available on Blackboard.

This distribution of in-class live lectures versus out-of-class recorded lectures is not determined in advance. The instructor will post an announcement in Blackboard at least one day in advance when students are expected to view a recorded lecture.

3. Class Work

The lectures will be interspersed with various types of class work. The class work will be executed via the Learning Catalytics® student response function of the etext and in-class activities in other formats,. Examples of class work include, but are not limited to:

- Answering questions (multiple choice, matching, ordering, short answer, discussion) about lecture material.

- Doing an assigned reading in-class and then answering questions about the reading.
- Completing worksheets, labeling diagrams, or preparing graphs from provided data on-line or in hard copy form.
- Participating in class discussions about lecture material, current topics, or assigned readings.

B. Lecture Class Period

Lecture classes are 50 minutes long. Students should be prepared to spend the **entire** period in lecture class!

C. Lecture Schedule

The lecture schedule can be found at the end of this syllabus. This schedule indicates the lecture topics planned for each lecture class as well as the exam dates. The schedule does not guarantee that a particular topic will be covered on a particular date. Relevant topics in the news might be interspersed into a particular lecture class or students may ask questions or demonstrate confusion about a topic that leads to it taking longer to cover that topic in class than planned. While it might end up that all of the listed topics cannot be covered or covered to the extent originally planned or covered on the date originally planned, the order of coverage will generally proceed as listed in the schedule. Exams dates indicated will not change based on the topics coverage. Instead, the content of the exams will be adjusted to match what has been covered to that point.

IV. Grading and Coursework

A. Relation of Lecture Grades to Course Grade

The entire course grade (for the 3 credit hour course) is determined by performance in lecture, and will be based on a total of 700 points. Performance in lecture accounts for 100% of the course grade.

B. Course Workload

During a regular semester, 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” is dependent upon each student’s background, interest, aptitude, study skills, etc. Depending on where you fall within that spectrum, you should expect to spend between 3 and 9 hours each week on this course outside of the time you spend in the lecture classes.

C. Course Grading Scale

The final course grade will be assigned based on the final total number of points accrued in lecture. The table below shows how the final course point total translates to a final course grade that will be received.

<u>Final Course Point Total</u>	<u>Final Course Average</u>	<u>Final Course Grade</u>	<u>Grade Points</u>
672 - 700	96% - 100%	A+	4.00
630 - 671	90% - 95.9%	A	4.00
616 – 629	88% - 89.9%	A-	3.67
602 – 615	86% - 87.9%	B+	3.33
560 – 601	80% - 85.9%	B	3.00
546 – 559	78% - 79.9%	B-	2.67
532 – 545	76% - 77.9%	C+	2.33
490 – 531	70% - 75.9%	C	2.00
476 – 489	68% - 69.9%	C-	1.67
420 – 475	60% - 67.9%	D	1.00
≤ 419	≤ 59.9%	F	0

D. Lecture Work and Grade Components

The lecture grade will be based on the exams, class work and Modified Mastering Environmental Science assignments. Explanations of each of these components can be found in the sections of that follow. The table below summarizes what portion of the lecture grade will be determined by each of the components of the lecture work.

Lecture Grade Component	# Points	% of Lecture	Comment
Exam #1	154	22%	Administered on-line outside of class time. The lowest of the scores on either exam #1 or exam #2 can be
Exam #2	154	22%	
Final Exam - Part 1 ▪ Mandatory, non-cumulative questions based on new materials	154	22%	Administered on-line during the scheduled final exam period for the course. The score resulting from mandatory part 1 will stand alone as
Final Exam – Part 2 ▪ Optional, questions based on material from exam # 1 and exam #2	0*	0*	Administered on-line during the scheduled final exam period for the course. *No points shown to the left because the score from optional part 2 will stand alone as a grade that can
Class Work	133	19%	A minimum of 210 points worth of in-class activities will be administered but only 133 points will be counted.
Modified Mastering Environmental Science®	105	15%	130 points worth of assignments have been made but only 105 points will be
Total	700	100%	

1. Exams (462 of the 700 possible points, or 66%)

There will be **three** exams, each worth 154 points or 22% of the total possible 700

points for lecture. Exam #1 will be administered approximately 5 weeks into the semester and exam #2 will be administered approximately 10 week into the semester. The 3rd exam is the final exam which will be administered during the GMU-scheduled final exam period for this course. The final exam will consist of two parts. **Part 1 is MANDATORY**, consists of questions on the new material covered since exam 2, will be graded separately from part 2, the grade will be recorded as the grade for exam #3, and the grade on part 1 cannot be replaced. **Part 2 is OPTIONAL**, consists of questions from exam #1 and exam #2, and will be graded separately from part 1. If a student does better on part 2 of the final exam than on either exam #1 or exam #2, the grade received for part 2 will replace the lowest grade from exam #1 or exam #2 – not both. Again, the grade for part 1 of the final exam cannot be dropped, nor can it be improved upon based on the grade received on part 2 of the final exam.

Lecture exams will be closed-book exams.

ALL EXAMS WILL BE ADMINISTERED ON-LINE VIA THE COURSE BLACKBOARD PAGE USING THE RESPONDUS & LOCKDOWN BROWSER FEATURES. In order to complete the exams using these features, students must have access to a computer that has a web-camera. If a student's personal computer does not have a web-camera, students will have to locate and utilize a GMU computer facility on campus that does have computers with web cameras and take their exams at that location. Students are responsible for knowing how to use the on-line testing platform and Respondus and LockDown Browser features in Blackboard before taking the first exam and are responsible for resolving any technological issues prior to the end of the exam availability period so that the exam can be submitted by its due date and time. To encourage students to know how to use the on-line testing platform and Respondus and LockDown Browser prior to the first on-line exam, a practice exam will be offered on-line for 5 points extra credit.

Exam #1 and exam #2 will be administered **ON-LINE, OUTSIDE OF REGULAR CLASS TIME**. The final exam will be administered **ON-LINE DURING THE OFFICIAL GMU FINAL EXAM PERIOD FOR THIS COURSE**.

The reasons for administering the exams outside of lecture class time for exams #1 and #2 and with extended availability for the final exam and using the on-line Respondus and LockDown Browser features include: 1) students will be afforded a slightly longer period of time to complete the exam than would be possible during a 50 minute class period for exam #1 and exam #2; 2) students can select a time of day to take the exam that works best with their personal schedules and peak periods of mental alertness; 3) students can select an environment (within the context of having access to a computer with a web camera) that provides them with minimal distraction and optimal physical comfort in which to take the exam; 4) it enables students to learn their raw score on the exam immediately after submitting it rather than having to wait for the instructor to process and post hundreds of exam scores manually; 5) it provides students the option of completing their exam from a remote location so that if they have to be out of town when an exam is scheduled they are not forced to miss the exam and receive a zero for it; and, 6) it provides a method for minimizing cheating on exams which is a benefit to all hard-working students who do not cheat.

Exam #1 and exam #2 will become available at 12:00am on the scheduled date of the exam and will be due by 11:59pm on that date. Exam #1 and exam #2 may be taken at

any time during the 23 hour 59 minute period that each is available but once an exam is opened, it must be completed within a single, 60 minute period (meaning students **cannot** open the exam, work on it for 10 minutes, close the exam and go do something else, and then reopen it and work on it again). To offset the impact on students' time of requiring exam #1 and exam #2 to be taken outside of the scheduled lecture class period, **there will be no lecture class on exam days so that students may take the exam on-line during the scheduled class time if they wish.**

No make-up exams will be administered regardless of the reason a student fails to complete an exam during its scheduled availability period. If a student fails to complete exam #1 or exam #2 during their scheduled availability periods, the student will receive a **zero** for the exam and will then be **required** to take both parts (mandatory and optional) of the final exam. If a student fails to complete the final exam during its scheduled availability period, the student will receive a zero for both part 1 and part 2 of the final exam and the exam component of their lecture grade will be based on their grades on exams #1 and #2. If a student knows **in advance** that they will not be able to complete an exam due to being out of town **and** not having access to the internet, it **might** be possible to make arrangements to take the exam in **advance**. Requests to take an exam early will be considered on a case-by-case basis and will be granted (or not) at the discretion of the lecture instructor.

2. Class Work (133 of the 700 possible points, or 19%)

Class work is work completed in lecture class. It will take the form of activities such as:

- Completing work using the Learning Catalytics® student response function associated with etext and Modified Mastering Environmental Science. Completing this work and receiving credit for it is dependent upon students bringing to class a web-enabled device upon which they can work.
- Doing an assigned reading in-class and then answering questions about the reading.
- Completing worksheets or graphs.
- Labeling diagrams.
- Participating in class discussions about lecture material, current topics, assigned readings.

A minimum of 210 points worth of class work will be conducted.

Class work **CANNOT BE MADE UP IF MISSED** due to 1) absence from lecture **regardless** of the validity of the reason for the absence, 2) arriving late or leaving early from class or leaving the classroom for an extended period for any reason, 3) failing to bring a web-enabled device to class or having technical difficulties with the device, 4) failing to have acquired or properly registered the Learning Catalytics® feature of the etext, or 5) having technical difficulties with the Learning Catalytics® program. In recognition that students might miss class work occasionally for any of the above reasons, **when calculating the final lecture grade, only 133 of the 210 points will be counted** such that missing a small amount of classwork will not negatively impact this component of the lecture grade. **PLEASE NOTE:** The purpose of this policy is to enable **ANY CLASS WORK MISSED FOR ANY REASON to be absorbed under a single policy.** It is not structured in this manner so that frivolous absences can be absorbed but then when unavoidable absences (such as but not

limited to illnesses, traffic delays, doctor's appointments, sick children, court appointments, car trouble, religious holiday observations, participation in school sanctioned activities such as athletics, forgetting a web-enabled device, technical difficulties, etc.) occur, students seek out waivers and exceptions to the policy.

Some class work will be graded based on completion and other class work will be graded based on correctness and some will be graded based on a combination of completion and correctness.

Some class work will be completed using only the Learning Catalytics® feature. Other class work will consist only of a paper-based activity. And some may consist of a combination of both.

Students will receive a single grade for each class work activity. It is possible that more than one activity will be conducted in a single class period such that missing that class will result in missing two activities, while missing a separate class may result in missing a single activity. Class work point values will vary. Most class work will be worth 5-10 points (out of the 700 possible).

Most class work conducted using the Learning Catalytics® feature will be graded in such a way 90% of the possible credit is based on participation and 10% of the possible credit is based on correctness.

Students are responsible for resolving any technical difficulties they are having with the Learning Catalytics® feature. If students can provide documentation (such as a screen shot of the technical problem or error message that shows the date, time, and student's name) that they experienced a Learning Catalytics® technical error during class and they provide that documentation to the lecture instruction within 24 hours of the occurrence of the error, then the student will be given full credit for that Learning Catalytics® session. This leniency will be granted only one time unless the student can also document their efforts to work with the Learning Catalytics® support department to resolve the issue in a timely manner and the inability of technical support to resolve the issue prior to the next in-class use of Learning Catalytics®, in which case leniency will continue to be granted until the technical issue is resolved.

Learning Catalytics® will be used in class for graded work for the first time on the second Wednesday of the semester.

3. Modified Mastering Environmental Science® Assignments (105 of the 700 possible points, or 15%)

Students **must** have access to the *Modified Mastering Environmental Science®* website. Please see section III. A. 1. above for information about required materials for the lecture portion of the course.

Ten Modified Mastering Environmental Science® (referred to in this document from this point as MES) assignments have been made and are due most Wednesdays of the semester.

The first MES assignment is due the second Wednesday of the semester by by 11:59pm.

The Modified Mastering Environmental Science® platform is integrated into the course Blackboard page and students who register their MES account via the integrated platform do not need any additional course-specific information. Students are responsible

for the correct registration in the MES course associated with this class.

When registering for MES, it is important that you enter your first and last names **exactly as they appear in the GMU records and** that you use your GMU email. **MOST IMPORTANTLY**, students must use their **GMU user name** when prompted to enter their “student ID” when registering for MES. Your GMU user name is everything in front of the @ sign in your GMU email address. For example, my GMU email address is klargen@gmu.edu and my GMU user name is klargen. In order to receive credit for your MES work, you must follow these instructions.

It is the student’s responsibility to resolve all technical difficulties with the technical support department of MES publisher.

Late MES assignments are accepted but are penalized at the rate of 2% per hour regardless of the reason for them being late, including technical difficulties. This penalty results in the assignment having rapidly diminishing point value after the due date and time, and no point value by the time the assignment is 50 hours late. Additional aspects of the grading of the MES assignments are as follows:

- There is no time limit for completing an MES assignment except within the context of its availability and due date.
- Students have 3 attempts to answer an MES question but there is a 25% penalty applied to a question answered incorrectly before the last attempt.
- There is a 2% bonus applied to a question answered without opening a hint.
- There is a 3% deduction applied to a question for which a hint was opened.

The total point value of the 10 MES assignments is 130 points. The point value assigned to each assignment varies, as shown in the “Modified Mastering Environmental Science – List of All Assignments – Spring 2019” document posted on the course Blackboard page. When calculating the final lecture grade, only 105 of those points will be counted. **PLEASE NOTE: The purpose of this policy is to enable MES assignments missed FOR ANY REASON (valid or not) to be absorbed under a single policy.** It is **not** structured in this manner so that frivolous reasons for missed MES assignments can be absorbed but then when unavoidable missed assignments occur (such as but not limited to illnesses, computer crashes, forgetfulness, religious holiday observances, participation in school sanctioned activities such as athletics, MES technical difficulties), students seek out waivers and exceptions to the policy.

The first MES assignment is available on the first day of the semester and the remaining 9 assignments will be available 10 days before the due date. The due dates are noted in the “Modified Mastering Environmental Science – List of All Assignments – Fall 2018” document posted in Blackboard as well as on the MES website. It is the student’s responsibility to keep abreast of assignments and their due dates.

The topics covered in a given MES assignment **may or may not have been discussed in lecture before the assignment is due.** Since the MES assignments are “open book”, students are expected to complete the assignments by the due dates **even if the material has not yet been covered in lecture.** MES assignments that contain topics not yet covered in lecture should be viewed as an introduction to those topics whereas MES assignments that cover topics already covered in lecture should be viewed as reinforcing those topics. Students are encouraged to seek assistance from the course instructor or an

undergraduate learning assistant if they are having difficulty with an MES assignment.

4. **Extra Credit** (maximum of 55 points)

A limited number of extra credit opportunities will be made available, at the instructor's discretion. The intent of extra credit is not to enable a student who is failing the course due to overall poor academic performance to pass the course. The purpose of extra credit is to provide an incentive for students to partake of opportunities that cannot otherwise be provided in the context of the course and to experience the viewpoints of professionals other than the regular course instructors.

It is NOT possible to provide a selection of extra credit opportunities that will satisfy the scheduling requirements of every student in the class. Therefore, it is expected that there will be extra credit opportunities made available that some students will not be able to take advantage of due to their own work or class schedules. Some opportunities will be unavailable to some students because it is necessary for students to provide their own transportation off campus to the extra credit opportunity. At least four extra credit opportunities are on-line assignments that they are accessible to all students in the course at any time.

The actions necessary in order to receive extra credit will vary by opportunity. In some cases the only requirement is to attend an event and sign in and out on a sign up sheet. In other cases, a brief written assignment will be required. In the case of the on-line opportunities, an on-line quiz will be the basis for the number of extra credit points received.

The extra credit opportunities will be listed on Blackboard in a file in the folder titled "extra credit opportunities and assessments". It is the student's responsibility to check this list often. Sometimes opportunities become available on short notice.

Students may accrue a maximum of 55 extra credit points which will be applied to their lecture grade. There is no guarantee made in advance that 55 points worth of extra credit opportunities will be made available during the semester.

Students attending extra credit opportunities are expected to participate fully. Failing to participate fully will result in the student NOT receiving the full number of extra credit points possible for that opportunity. For example, showing up to a presentation and sleeping through it will result in the student not receiving the extra credit points. Please note that there will be no "pro-rating" of points for attending only part of an event. To do so would encourage the practice of arriving late to or leaving early from a presentation which is disrespectful and rude.

Students are expected to exhibit exemplary behavior when attending any extra credit event!! Plan to arrive on time and stay until the end of the event. Give the presenter your full and respectful attention (no chatting, no use of electronic devices, etc.). Any reports of inappropriate behavior by EVPP 108 students in attendance at an event will result in 1) revocation of the extra credit points awarded to the offending student(s), and 2) the possible cancellation all remaining extra credit opportunities for all students in the course.

All provisions pertaining to the GMU Honor Code and academic integrity apply to all extra credit opportunities and falsifying information about attendance at an extra credit opportunity will result in the student being reported to the Honor Committee.

Due to the varied times during which lab sections are scheduled, it is possible that an

extra credit opportunity might be made available even though it conflicts with the class time of a particular lab section. The appearance of an extra credit opportunity on the list does not imply that a student will be excused from attending lab in order to attend an extra credit event.

Students may not receive extra credit for activities or projects that are not on the “extra credit opportunity” list. In other words, please do not approach your lab or lecture instructor to ask that some event that already attended be counted as extra credit for you. You are welcomed to bring to the instructor’s attention **in advance** any event that you become aware of that might make an appropriate extra credit opportunity and it is possible that it will be added to the list so that all students in the course have the theoretical possibility of taking advantage of it.

V. Course Policies

A. Lecture Attendance

1. Expectations

Attendance to lecture classes is expected and required.

2. Impact of Absences on Class Work Grades

Attendance is not directly a component of the lecture grade. However, class work is a component of the lecture grade and students cannot complete this component when they arrive late, leave early, or are absent from lecture class.

Missed class work **cannot be made up, regardless of the validity of the reason for the absence.** To rephrase: Even if the absence is unavoidable, the result of a valid reason, and/or not your fault, being absent will result in a zero for that day’s class work.

There is a minor exception to the above paragraph. Absences caused by religious observance and participation in university-sponsored activities, are governed by academic policy (AP) 1.6.1 which states that students must provide their instructor within the first two weeks of the semester a list of “the dates of major religious holidays on which they will be absent, and the dates for which they are requesting an excused absence for participation in any university-sponsored activity scheduled prior to the start of the semester, and as soon as possible otherwise.”

Students who miss a lecture class due to a religious observation or participation in a university-sponsored activity covered by AP 1.6.1 AND notified their lecture instructor in advance, per AP 1.6.1, **will** be permitted the following “**reasonable**” opportunities to reduce the impact on their grade of those lecture absences:

- Students who have notified the instructor in advance of an anticipated lecture absence (for a reason governed by AP 1.6.1) during a time period in which an exam is scheduled may make arrangements to take the exam **early**. No make-up exams will be administered after the exam has been given to the full class.
- Students who have notified the instructor in advance of an anticipated lecture class absence during which paper-based (meaning non Learning Catalytics) class work is subsequently administered (these are not scheduled in advance) will be given the opportunity to complete the paper-based in-class activity individually and receive

credit for the activity. Students will not be given the opportunity to complete Learning Catalytics®-based class work.

Academic policy 1.6.1 requires that “reasonable” opportunities be provided to reduce the impact on a student’s grade caused by missing a lecture class due to a religious observance or participation in a university-sponsored event. The purpose of the Learning Catalytics® class work is to measure the collective grasp of material at a particular point in the lecture, the scoring of answers is done automatically, and the correct answers are made available immediately after the class performance on the questions is analyzed and discussed in class. There is not a method by which the work done in class can be made available at other times to individual students without those students already having access to the correct answers. Therefore, there is **NO “reasonable”, fair** opportunity to minimize the impact on the student’s grade of missing Learning Catalytics® class work. Therefore, students who miss Learning Catalytics® class work due to absence from lecture class due to religious observance or participation in university-sponsored activities will **not** receive credit for the missed Learning Catalytics® class work. However, **please note that the general policy pertaining to the class work component of the lecture grade will allow for a reasonable number of missed lecture classes without negative impact on the student’s grade.** A minimum of 210 points worth of class work (of which Learning Catalytics® is a part) will be administered but only 133 of those points will be counted in the calculation of the final lecture grade.

B. Email Expectations

Students **must** use their MasonLive email account to receive important University information, including messages related to this class (see also “student privacy” above). See <http://masonlive.gmu.edu> for more information. 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 lecture 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 will be “see syllabus.”

C. Instructional Continuity in the Event of University Closings

In the even the that this class is cancelled due to the university closing all day or opening late or closing early for any reason, students **may** be directed by the instructor to view and listen to lectures recorded and posted in Blackboard as a way to make up for some number of the cancelled lecture classes. In the event that it becomes necessary to do so, the instructor will inform students of the necessity and provide instructions for accessing the recorded presentations.

D. Grades in Blackboard

Lecture grades will be recorded in Blackboard. It is the student’s responsibility to monitor the lecture grades recorded in Blackboard and to inform the lecture instructor in a timely manner of any perceived discrepancies. The following information and grades will be recorded for lecture in Blackboard:

- **Individual columns:**

- Class Work: A grade column will be created for each item of class work conducted. Each of these columns will begin with “CW” following by date, point value, and possibly additional identifying information. These grades will be recorded as a point value. For example, if a piece of class work was worth 5 points and you received a grade of 4 points, the value recorded in this column will be 4. It will not be recorded as a percent grade.
- Modified Mastering Environmental Science assignments: A grade column will be created for each of the 10 Modified Mastering Environmental Science assignment grades. Each of the columns will begin with “MES” followed by the assignment number and the point value. Students will also be able to see their MES grades in the MES program. Periodically, these grades will be transferred to Blackboard. These grades will be recorded as a point value. For example, if the assignment was worth 15 points and you received a grade of 13 points, the value recorded in this column will be 13. It will not be recorded as a percent grade.
- Exams: For each exam, a minimum of two grade columns will be created – one for the percentage score and one for the and the point score (which is the number of points received out of the number of points possible for the exam). For example a percent score of 88 on an exam worth 154 points would result in a point score of 135.52 out of the possible 154 points.
- **Total columns**: The following columns, headed as shown below, will update automatically throughout the semester:
 - “CW Total (max of 133)”: This column will show a running total of all points accrued to date on the class work. Since Blackboard cannot “drop” any of the scores it is important to note that this column could show a total higher than the maximum 133 points from this grade component than will count toward the final lecture grade since up to 210 points worth of class work will be administered.
 - “MES Total (max of 105)”: This column will show a running total of all points accrued to date on the Modified Mastering Environmental Science assignments. Since Blackboard cannot “drop” any of the scores it is important to note that this column could show a total higher than the maximum 105 points from this grade component than will count toward the final lecture grade since 130 points worth of MES assignments have been made.
 - “Exam Total (max of 462)”: This column will show a running total of all points accrued to date on the exams. Since Blackboard cannot “drop” one of the scores it is important to note that this column could show a total higher than the maximum 462 points from this grade component than will count toward the final lecture grade.

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 to which everything entered into Blackboard is added, regardless of the purpose of the values entered. 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 lecture grade (or course grade) is much higher than it actually is.

VI. University Policies

A. Academic Integrity

EVPP 108 lecture and lab is governed by the GMU Honor Code. Please refer to the Office of Academic Integrity website at <https://oai.gmu.edu> for a full description of the code and the honor committee process. All course work is expected to be completed INDIVIDUALLY. Copying classmates' work on any assignment or exam (except for the sharing of raw data) is considered **cheating** and a violation of the Honor Code. The formal lab report must be the independent work of each student. If an instructor discovers that two or more students have submitted work (especially lab reports) 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 assignment. 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 Office of Disability website at <https://ds.gmu.edu>.

C. Diversity

The following is George Mason University's "Diversity Statement", verbatim from <http://stearnscenter.gmu.edu/professional-development/mason-diversity-statement>.

"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" below). See <https://registrar.gmu.edu/ferpa/> for more information.

E. Student Support Resources

There are a number of 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 at <http://catalog.gmu.edu/>
- University Policies at <http://universitypolicy.gmu.edu/>
- Counseling and Psychological Services at <http://caps.gmu.edu/>
- INTO George Mason (program for international students) at <http://www.intohigher.com/us/en-us/the-universities/into-mason.aspx>
- Learning Services at <http://caps.gmu.edu/learning-services/>
- University Career Services at http://careers.gmu.edu/?_ga=1.173099747.1501406856.1441291419
- University Writing Center at <http://writingcenter.gmu.edu/>

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 (go to <https://ready.gmu.edu/masonalert/> to register) in the event of a campus emergency. Please review the Emergency Preparedness Guides at <https://ehs.gmu.edu/guides/>

VII. Lecture Schedule

The topics will be covered in the order show below but the exact dates on which the topics end up being discussed may be earlier or later than shown below and some topics may be skipped if other topics end up taking longer than planned. The exam dates show below will remain the same regardless of where we are in the material. If we are moving faster or slower through the

topics, then the content of the exam will be adjusted but the exam dates will stay the same. More detailed ranges of pages for text readings will be posted on Blackboard.

Lecture Topics, Reading Assignments, Exam Schedule:			Reading Assignments
Week	Class	Topic	Text
Unit: Introduction to Environmental Science			
1	1	Administrative introduction	NA
1	2	Introduction to environmental science & scientific method	Ch. 1
1	3	Introduction to environmental science & scientific method	
Unit: Matter & Energy			
2	1	Matter & Energy: Atomic structure	Ch. 2
2	2	Matter & Energy: Atomic structure - <i>continued</i>	
2	3	Matter & Energy: Chemical bonds	
3	1	Matter & Energy: Chemical bonds - <i>continued</i>	
3	2	Matter & Energy: Properties of water, pH, chemical reactions	
3	3	Matter & Energy: Properties of water, pH, chemical reactions - <i>continued</i>	
4	1	Matter & Energy: Thermodynamics, enzymes, diffusion	
4	2	Matter & Energy: Thermodynamics, enzymes, diffusion - <i>continued</i>	
4	3	Matter & Energy: Chemistry of life	
5	1	NO LECTURE - Exam #1 – ON-LINE – DUE BY 11:59pm	
5	2	Matter & Energy: Chemistry of life - <i>continued</i>	
Unit: Life			
5	3	Life: Origin, characteristics, classification, levels of organization	Ch. 3
6	1	Life: Origin, characteristics, classification, levels of organization - <i>continued</i>	Ch. 3, 11
6	2	Life: Tour of kingdoms of life	
6	3	Life: Tour of kingdoms of life - <i>continued</i>	
7	1	Life: Tour of kingdoms of life - <i>continued</i>	
Unit: Physical Environment			
7	2	Physical Environment: Earth origin, age, structure	Ch. 2

Lecture Topics, Reading Assignments, Exam Schedule:			Reading Assignments
Week	Class	Topic	Text
7	3	Physical Environment: Earth origin, age, structure - <i>continued</i>	Ch. 2
8	1	Physical Environment: Plate tectonics theory development	
8	2	Physical Environment: Plates tectonics	
8	3	Physical Environment: Earthquakes & volcanoes	
9	1	Physical Environment: Atmosphere composition	Ch. 17, 18
9	2	Physical Environment: Atmosphere composition - <i>continued</i>	
9	3	Physical Environment: Atmosphere composition - <i>continued</i>	
10	1	NO LECTURE - Exam #2 – AVAILABLE 12:00am - 11:59pm	
10	2	Physical Environment: Atmosphere & ocean circulation	
10	3	Physical Environment: Atmosphere & ocean circulation - <i>continued</i>	
11	1	Physical Environment: Climate and biomes	Ch. 4, 16, 17
11	2	Physical Environment: Climate and biomes - <i>continued</i>	
Unit:	Populations		
11	3	Populations: Population ecology	Ch. 3
12	1	Populations: Population ecology - <i>continued</i>	
12	2	Populations: Evolution and natural selection	
12	3	Populations: Evolution and natural selection - <i>continued</i>	
Unit:	Communities		
13	1	Communities: principles of communities, species interactions, competition	Ch. 4, 11
13	2	Communities: principles of communities, species interactions, competition - <i>continued</i>	
13	3	Communities: Succession, biodiversity	

Lecture Topics, Reading Assignments, Exam Schedule:

Lecture Topics, Reading Assignments, Exam Schedule:			Reading Assignments
Week	Class	Topic	Text
Unit:			
Ecosystems			
14	1	Ecosystems: Terrestrial and aquatic biomes	Ch. 5
14	2	Ecosystems: Terrestrial and aquatic biomes – <i>continued</i>	
14	3	Ecosystems: Terrestrial and aquatic biomes – <i>continued</i>	
15	1	Ecosystems: Biogeochemical cycles	
15	2	Ecosystems: Biogeochemical cycles – <i>continued</i>	
15	3	Ecosystems: Biogeochemical cycles – <i>continued</i> *Last day of class	
		FINAL EXAM – ON-LINE	