

**EVPP 111 - "Ecosphere: Environmental Science II"**  
**LAB SYLLABUS - All Sections**  
**Spring 2004**  
**1/21/04**

**Lab Instructors**

Each of the six lab sections will be taught by one of four graduate teaching assistants. Space has been provided below for each student to record contact information for his/her lab instructor. It is the student's responsibility to know how to contact his/her lab instructor.

<b>Instructor:</b>	
<b>Lab Section #:</b>	
<b>Lab Day and Time:</b>	
<b>Instructor's Phone #:</b>	
<b>Instructor's Email:</b>	
<b>Instructor's Office Location:</b>	
<b>Instructor's Office Hours:</b>	
<b>Instructor's Mailbox Location:</b>	DK 3042-3043
<b>Course Website:</b>	<a href="http://mason.gmu.edu/~klargen">http://mason.gmu.edu/~klargen</a>

**Course Coordinator:**

**Dr. Kim Largen**

Office: David King Hall (DK) Room 3047

Phone: 703-993-1033

Mailbox: David King Hall (DK) Room 3042-43

Email: [klargen@gmu.edu](mailto:klargen@gmu.edu)

Office Hours:

Monday 8:15am – 8:45am AND 10:30am – 11:00am

Wednesday 8:15am – 8:45am AND 10:30am – 11:00am

Additional office hours will be held some weeks and will be posted weekly on the instructor's website for the following week.

**Grading**

The lab grade will constitute 25% of the course grade and will be based on a total of 250 points (out of a possible total of 1000 points for the course). The grade will be determined by performance on lab write-ups for the weekly lab exercises, in-class activities, three pop quizzes, and the country environmental analysis group project.

**PLEASE NOTE:** While there will be no lab exams, material from lab exercises **WILL BE**

**INCLUDED ON LECTURE EXAMS.** Therefore, students are responsible for understanding the concepts of and the expected results for lab exercises.

<b>Activity Type</b>	<b>Points</b>
Lab exercise Write-Ups	200
In-Class Activities	15
Pop Quizzes	15
Country Project	20
<b>Total</b>	<b>250</b>

### **Attendance**

**Attendance is expected and required at all labs.** When a student misses a lab exercise, he/she misses more than just the data that was gathered (which serves as the basis for the lab write-up). The student misses first-hand observations, hands-on experiences, cooperative learning opportunities, the use of equipment, and exposure to data collection techniques and challenges. With that in mind, it follows that there is no way to fully "make-up" that learning experience when a lab session is missed, regardless of the validity of the reason for the absence. Simply obtaining the data from another student and completing the lab write-up does not and can not serve as a full substitute. Students are expected to make every attempt to fulfill the scheduling commitment they made when they registered for their lab section. When a situation arises that causes a student to be unable to attend his/her regular lab section, the guidelines outlined below under "Consequences of Missing Lab" will apply, regardless of the validity of the reason for the lab absence. Students absent from lab for any reason will not be permitted to make-up in-class activities or pop quizzes conducted on the day of their absence. Students absent from lab are still responsible for all lab material that they missed because that material will appear on lecture exams.

### **Consequences of Missing Lab**

The following guidelines apply to missed labs in EVPP 111, regardless of the validity of the reason for the lab absence.

- **Missed lab made-up in another lab section:** Full credit for a missed lab session will given **only** if the student attends another lab section during the same week as the absence and participates in the same lab exercise. **Please note:** This does not imply that students may attend on a regular basis any lab section they wish during the week!! No more than three missed labs during the semester can be made-up by attending another lab section.

- **First missed lab NOT made-up in another lab section:** An automatic deduction of 10% of the lab point value will occur (regardless of the validity of the reason for the absence) for the first missed lab that is **not** made up by attending another section. It is the student's responsibility to obtain from a member of his/her lab group (**not** from the lab instructor) the data gathered by his/her group during the missed lab exercise(s). The student must submit the lab write-up by the original due date for their lab section. If the student does not submit the lab write-up by the original due date, the penalties for late submission of lab write-ups (see page 5) will apply.
- **Second missed lab NOT made-up in another lab section:** An automatic deduction of 20% of the lab point value will occur (regardless of the validity of the reason for the absence) for the second missed lab that is not made up by attending another section. It is the student's responsibility to obtain from a member of his/her lab group (**not** from the lab instructor) the data gathered by his/her group during the missed lab exercise(s). The student must submit the lab write-up by the original due date for their lab section. If the student does not submit the lab write-up by the original due date, the penalties for late submission of lab write-ups (see page 5) will apply.
- **Third and subsequent missed labs NOT made-up in another lab section:** An automatic deduction of 100% of the lab point value will occur (regardless of the validity of the reason for the absence) for the third (or more) missed lab(s) that is not made up by attending another section. The lab instructors will **not accept** any lab write-ups prepared for third and subsequent missed labs not made up by attending another lab section.

### **Punctuality**

At the beginning of each lab class, instructors will provide students with valuable information about the exercise(s) to be conducted that day including: presentation and explanation of concepts involved; demonstrations of procedures and equipment to be used; corrections and/or clarifications of instructions contained in lab exercises; answers to students' questions about procedures to be used; etc. **Failure to be present at the beginning of class 1) renders the tardy student unprepared to carryout the lab, and 2) is disruptive and unfair to the remainder of the class and to the lab instructor. Therefor, tardiness will not be tolerated and will be penalized, regardless of the validity of the reason for the tardiness.** Students arriving 10 - 20 minutes late to lab will be **penalized** 15% of the lab point value. Students arriving 21 - 30 minutes late will be penalized 30% of the lab point value. **Students arriving more than 30 minutes late will not be permitted to participate in the lab** (will be penalized 100% of the lab point value). Additionally, students arriving late for class **will not be**

permitted to take or make-up in-class activities or pop quizzes conducted prior to their arrival.

### Lab Exercises

Students will obtain lab exercises from three sources; 1) handouts from instructors, 2) printouts by students from course website (<http://mason.gmu.edu/~klargen>), and 3) lab manual purchased from bookstore. Lab manuals will be available for purchase approximately two to three weeks into the semester. Copies of individual lab exercises will be provided to students by the instructors until lab manuals become available. Some lab exercises will not be in the lab manual but instead will be posted on the course website. It will be the responsibility of each student to print out those exercises from the website and bring them to class. Each exercise will consist of several pages describing the exercise and several "lab write-up" pages that students will complete and submit. Remove and turn in the lab exercise write-up pages but keep the lab exercise description pages. Material presented in the lab exercise description pages and by instructors during class will be included on lecture exams.

### Lab Write-Ups

Students must complete a lab write-up for each lab exercise. Lab write-ups have point values ranging from 5 to 10 points based on the amount of lab time devoted to the exercise and the level of detail required in the write-up. Lab point values are indicated on the tentative lab schedule on the last page of this syllabus. Students must submit their lab write-ups to their lab instructor (**not** to the lecture instructor). Data and observations will be made by the lab group during the lab exercise, but **the lab write-up must be the independent work of the student.** Students are not to copy each other's graphs, figures, illustrations or answers to questions for the lab write-ups. **Students who do engage in this activity will be considered to be in violation of the Honor Code and will be subject to its consequences.**

### Lab Write-Up Due Dates

**LAB WRITE-UPS ARE DUE AT THE BEGINNING OF THE LAB CLASS AFTER THE LAB CLASS IN WHICH THE LAB EXERCISE WAS COMPLETED.** Due dates are not included in the tentative schedule on the last page of this syllabus due to possible changes in the dates that an exercise will be conducted. **It is the student's responsibility to know which lab exercises were completed during each lab class and recognize that the write-ups for those completed exercises are due at the beginning of the next lab class!!** Lab write-ups should be submitted in person by the student to the lab instructor at the beginning of each lab class. **If a student submits a**

lab write-up after the due date to an instructor's mailbox, the instructor will consider that write-up to have been submitted at the next lab class (and, therefore, it will be considered to be one week late and will be penalized accordingly) unless the student has someone at the department office verify the submission date and time. Students should make every effort to submit labs directly to their lab instructor. Instructors will make every effort to return lab write-ups by the second lab class after the lab class during which the exercise was submitted.

### **Penalty for Late Submission of Lab Write-Ups**

The point value for each lab write-up is given on the last page of this syllabus. Lab write-ups submitted at the beginning of the second class after the class in which the exercise was completed will be considered **one week late and will be penalized at the rate of 15% of the lab point value**. As explained above, labs submitted to instructors' mailboxes after the original due date but before the second class after the class in which the exercise was completed will be considered to be the full week late unless students have had the date and time of submission verified by a staff member at the department office. Lab write-ups submitted at the beginning of the third class after the class in which the exercise was completed will be considered **two weeks late and will be penalized at the rate of 30% of the lab point value**. As explained above, labs submitted to instructors' mailboxes after the second class after completion of the exercise but before the third class after the completion of the exercise will be considered to be the full two weeks late unless students have had the date and time of submission verified by a staff member at the department office. **No lab write-ups will be accepted beyond the two week late mark, which means labs more than two weeks late will be penalized at the rate of 100% of the lab point value.**

### **In-class Activities**

Lab exercises will occasionally be supplemented by impromptu activities that will be completed in-class. A total of fifteen points out of the total 250 points for lab will be based on completion of these activities. The in-class activities will not be scheduled in advance and will be conducted without prior notice. If you miss an activity due to missing the entire lab or due to arriving late or leaving early, you will **not** be permitted to do a makeup of the activity and will receive no credit for the activity.

### **Pop Quizzes**

Students should **always read the lab exercise in advance**. To encourage this practice, three pop quizzes will be administered during the semester. Pop quizzes will not be announced in advance. These pop quizzes will pertain to the exercise(s) scheduled for

the day of the pop quiz. Students who have read and thought about the scheduled exercise(s) should be able to perform well on these pop quizzes. Students who arrive late on a day that a pop quiz is administered **will not be permitted to take or make-up the pop quiz**. Each of the three pop quizzes will be worth 5 points for a total of 15 points out of the 250 possible points for lab. Students are responsible for keeping abreast of the official lab schedule and for obtaining and reading in advance the lab exercises in the lab manual and those posted in advance on the website. Pop quizzes will not be conducted on a day during which a lab exercise is being provided by the instructor on the same day as the exercise.

### **Country Environmental Analysis Project**

Each lab group will be assigned a country for which they will conduct an environmental analysis. The group must also prepare a Powerpoint presentation and deliver the presentation (orally) to their entire lab class. All groups will deliver their presentations during their final lab class meeting (either 4/28, 4/29, 4/30). A separate handout will be distributed approximately three weeks into the course that describes this project in more detail.

### **Honor Code**

EVPP 111 lab is governed by the GMU Honor Code. While lab exercises are carried out as a lab group, the lab write-ups, pop quizzes and some in-class activities are expected to be completed INDIVIDUALLY. Copying classmates' answers for lab write-ups (graphs, figures, sketches, answers to questions, etc.) is considered cheating and a violation of the Honor Code which will not be tolerated.

### **Disruptive Behavior**

While lab instructors are presenting information to the class, students are expected to **pay attention and remain quiet**. **Noisy, distracting, disruptive behavior** by students will be **penalized 15% of the lab point value for the first occurrence** on a given date and **an additional 15% (for a total of 30%) of the lab point value for the second occurrence** on the same date. Students who fail to heed the first two requests of the instructor to cease the disruptive behavior will be asked to leave upon the **third occurrence on the same date and will be penalized 100% of the lab point value for that day** (which means they will receive a zero for that day's labwork). Noisy, distracting, disruptive behavior by students on a new class day will bring a new series of penalties as detailed above.

### Resolving Disputes Between Lab Instructors and Students

Students who have disputes with their lab instructors, particularly about grades, must make every effort to resolve those disputes by working directly with the lab instructor. Students are strongly encouraged to document the issues they have and all attempts they have made to resolve them. **Please note:** If a student seeks to involve the course coordinator in resolving disputes with a lab instructor, the student should be aware that the course coordinator will: 1) expect that the student has already approached the lab instructor and, therefore, that the lab instructor will be aware of the student and his/her issue; 2) discuss the situation with the lab instructor and, in so doing, identify the student and the issue involved; and 3) require a meeting with the student and the lab instructor, simultaneously.

### Penalty Summary

The penalties mentioned in the various sections above are summarized in the table below. For weeks during which parts of more than one lab are conducted, the lab point value for that week for the purpose of determining penalties, will be calculated by prorating the lab point values of each lab exercise being conducted, adding the results, and applying the penalty percentage to that lab point value.

Penalty Type	Penalty - as % of point value
Missed lab, made up in another section (max=3 during semester)	0%
1 <sup>st</sup> missed lab, not made up in another section	10%
2 <sup>nd</sup> missed lab, not made up in another section	20%
3 <sup>rd</sup> or more missed labs not made up in another section	100%
Tardy, 10 - 20 minutes	15%
Tardy, 21 - 30 minutes	30%
Tardy, more than 30 minutes	100%
Late lab write-up, 1 week late	15%
Late lab write-up, 2 weeks late	30%
Late lab write-up, more than 2 weeks late	100%
Noisy, distracting, disruptive behavior, 1 <sup>st</sup> occurrence by date	15%
Noisy, distracting, disruptive behavior, 2 <sup>nd</sup> occurrence by date	Additional 15% (total of 30%)
Noisy, distracting, disruptive behavior, 3 <sup>rd</sup> occurrence, by date	100%
Missed pop quiz	100%
Missed in-class activity	100%

### Safety

EVPP 111 lab is a relatively safe laboratory experience. However, there are always

potential risks involved in any lab or field activity. The general guidelines below are designed to alert you to the potential safety hazards associated with EVPP 111 lab.

### **Lab Safety**

- Use common sense in the laboratory at all times.
- Each individual must take responsibility for ensuring his/her own safety.
- Maintain a serious scientific attitude. Do not "fool around" in lab.
- Use care when handling or washing sharp instruments (e.g., razor blades) or glassware. Discard broken glassware carefully.
- Never place anything that was used in lab into your mouth.
- Do not eat or drink in lab.
- Wash your hands before leaving lab.
- Be cautious with electricity. Be sure that electrical cords do not hang over the side of the counters or tables where a passerby might accidentally pull or trip over them. If you suspect an electrical short in any equipment, notify your instructor immediately. Do not insert objects into electrical outlets or approach them with wet hands.
- Use care in using blender. Do not place hands inside blender barrel when blender is in operation.
- In the event of a fire, accident, injury or chemical spill (no matter how minor), notify your lab instructor immediately. If there appears to be a medical emergency, seek immediate help from Campus Police by dialing 911.
- Keep your work surface as clean and as orderly as possible. Place all waste in the proper receptacle. Clean off your lab table before you leave. During lab, store books, book bags, purses, backpacks, etc., away from your work table in a location that will not impede traffic or be in the way of others. When you are not sitting in your chair, keep it under the table to prevent others from tripping over it.
- Acquaint yourself with the location of the emergency exit route for this facility. Also acquaint yourself with the location and proper use of the eyewash, first aid kit, and any other emergency equipment present.
- Your lab instructor will inform you at the beginning of each lab exercise if there are any special safety considerations for that particular exercise.
- Children, acquaintances, and pets are not allowed in lab.

### **Field Safety**

- Wear comfortable shoes and clothing for field labs. Avoid wearing clothes that you would not want to get dirty. Avoid wearing shoes with open toes or high heels. Athletic shoes or hiking boots are appropriate. Blue jeans or loose fitting, durable



clothing will probably be most comfortable for field work. In the case of potential inclement weather, be sure to bring rain gear for working in the field.

- Potential hazards associated with working in the field include poisonous plants (e.g., poison ivy), insects (ticks, mosquitoes, chiggers, etc.), and snakes. If you encounter a snake in the field, leave it alone. Be sure to check yourself for ticks following any outdoor field trip. Lyme disease, a tick-borne illness, does occur in our area. If you find a tick on your body, remove it carefully. Be careful handling plants unfamiliar to you.
- Seat belts must be used in university vans which will be used to transport students to off-campus field trips.

### **Lab Period**

Lab periods are 2 hours 50 minutes long. Students should be prepared to spend the entire period in lab class!

### **Lab Schedule**

A tentative lab schedule can be found on the last page of this syllabus. This tentative schedule indicates the lab exercises that are planned to be conducted each week. Some lab exercises will be started and completed in the same week. In other cases, lab exercises will be started one week and finished another week. Several exercises will be executed over the course of many weeks. **Changes to the tentative schedule will be posted on the course website at <http://mason.gmu.edu/~klargen>. IT IS THE STUDENT'S RESPONSIBILITY TO CHECK THE WEBSITE REGULARLY TO KEEP ABREAST OF THE LAB SCHEDULE, print out any exercises not contained in the lab manual, and read exercises from the lab manual or the website prior to coming to lab class.**

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## Tentative EVPP 111 Lab Schedule Spring 2004

Date			Exercises		Points
W	R	F	To Be Started	To Be Completed	
1/21	1/22	1/23	6 Billion Humans	6 Billion Humans	5.0
1/28	1/29	1/30	Population Pyramids (Distribute/Explain)		
			Simulated Mark-Recapture	Simulated Mark-Recapture	8.0
			Tigers: Survival & Extinction	Tigers: Survival & Extinction	5.0
2/4	2/5	2/6	Predator/Prey Bean Simulation	Predator/Prey Bean Simulation	8.0
			Predator/Prey Interactions POPULUS	Predator/Prey Interactions POPULUS	8.0
				Population Pyramids	8.0
2/11	2/12	2/13	Ecology Game (Sustainable Island)	Ecology Game (Sustainable Island)	8.0
			You in Food Chain (Distribute/explain)		
2/18	2/19	2/20	Primary Productivity - Set Up		
				You in The Food Chain	10.0
			Worm Composting - Set Up		
			Energy Inventory (Distribute/explain)		
2/25	2/26	2/27		Primary Productivity	10.0
			Renewable Energy - Set Up		
3/3	3/4	3/5	Effective of Insulation	Effective of Insulation	10.0
				Renewable Energy	10.0
				Energy Inventory	10.0
<b>3/10</b>	<b>3/11</b>	<b>3/12</b>	<b>SPRING BREAK</b>		
3/17	3/18	3/19	Soil pH and Plant Nutrients	Soil pH and Plant Nutrients	10.0
			Plant Growth - Set Up		
			Acid Rain-Effect on Plants-Set Up		
3/24	3/25	3/26	Soil Texture Analysis	Soil Texture Analysis	10.0
3/31	4/1	4/2	Leaf Litter Biodiversity - Set Up		
			Drinking Water Quality	Drinking Water Quality	10.0
4/7	4/8	4/9	Forest Microclimate - Set Up		
				Leaf Litter Biodiversity	10.0
			Air Pollution - Set Up		
4/14	4/15	4/16	Soil Buffering of Acid Rain	Soil Buffering of Acid Rain	10.0
				Air Pollution	10.0
				Forest Microclimate	10.0
4/21	4/22	4/23		Plant Growth	10.0
				Acid Rain-Effect on Plants	10.0
				Worm Composting	10.0
4/28	4/29	4/30	Country Projects	Country Projects	20.0

