



ENVS 1401L-165 ENVIRONMENTAL SCIENCE LABORATORY
Clarkston Campus – Spring 2015
 CRN: 32752



WELCOME TO GEORGIA PERIMETER COLLEGE!

This is a laboratory to accompany ENVS 1401. The laboratory investigates the scientific aspects of the impacts modern society has upon the natural environmental systems of Earth. The exercises will examine some of the problems associated with the future sustainability of critical components of Earth’s hydrosphere, atmosphere, geosphere and biosphere. This course is designed for non-science majors. 1 credit

Class Schedule and Location:

Thursday 10:00 am - 12:45 pm
 Clarkston Campus Room CC-1150. Geology Lab.

Professor, Contact Information, and Office Hours

Professor:

Dr. Pamela J. W. Gore
 Phone: (678) 891-3754
Pamela.Gore@gpc.edu
<http://facstaff.gpc.edu/~pgore/gore.htm>

Location:

Clarkston CC-2161
 Dept. of Life & Earth Science
 Georgia Perimeter College
 555 North Indian Creek Dr.
 Clarkston, GA 30021

***Advising and Tutoring Hours
 for you in my office:***

M --
 Tu 10-12 & 1-5:30
 W --
 Th 2-5:30
 And by appointment

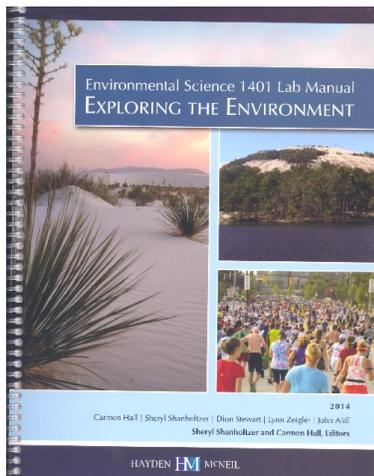
Prerequisite:

Exit or exemption from Learning Support and ESL (English as a Second Language) requirements.

Corequisite:

ENVS 1401.

Required Laboratory Manual:



Hall, C., Shanholtzer, S., Stewart, D., Zeigler, L., and Aliff, J. 2014-2015. Exploring the Environment. Environmental Science 1401 Lab Manual. Hayden-McNeil. ISBN 9780738069883.

Lab manuals are included in the cost of the tuition for this course this semester, so you should not have to purchase a lab manual. Your lab manual will be delivered to the lab room on the first day of lab. You will need to sign for it. If you miss the first day, please check with your instructor.

Lab exercises are done by writing in the lab manual, like a workbook. Bring your lab manual to class every week, and be prepared for lab by reading the lab in advance, and answering review questions, to help prepare for the pre-lab quiz.



Required Materials for Lab:

1. **Lab Manual** (see above). Bring your lab manual to class every time, starting on the first day. No lab manual, no lab to turn in at the end of class, and no grade for the day (zero).
2. **Lab notebook** (see instructor)
3. **Mechanical pencils** with 0.7 mm #2 leads with eraser. Labs must be done in pencil. No pen. (You will make lots of small mistakes and make many changes.)
4. **Green scantron sheets** for quizzes and exams.
5. **Calculator.** You cannot use the calculator on your phone during a quiz or exam. Get an inexpensive stand-alone calculator.

Policy on Laboratory Safety:

You will have online access to laboratory safety rules, which you must read. When you submit the student information and release form, you agree to abide by the rules and any penalties stipulated therein.

Lab Safety Guidelines for ENVS Students -

http://facstaff.gpc.edu/~pgore/STEM/Lab_Safety_Guidelines_for_Students_FY12-ENVS_fillable-form.pdf

Complete the form and sign the first page and return it to your instructor.

Weekly Lab Schedule:

This schedule is tentative and may change. Additional quizzes may be added. All changes will be announced in class or in iCollege. Pre-lab quizzes may be done online before class, or during class, at the option of the instructor.

Week	2015 Date	Assignment	Quizzes and Exams
1	Jan 15	Monday January 12, 2015 - Classes begin Module A - Basic Skills – Exercise 1 (Point counting)	Quiz on Module 1 (online, after lab)
2	Jan 22	Module A - Basic Skills – Exercise 2 (Metric system)	Pre-Lab Quiz on Basic Skills Exercise 2
3	Jan 29	Monday January 19, 2015 – MLK Day – No classes Module A - Basic Skills – Exercise 3 (Topographic maps) Week 3: PASS Assessment 1- Students will demonstrate an understanding of how science progresses through the scientific method.	Pre-Lab Quiz on Topographic Maps PASS Assessment 1 in iCollege
4	Feb 5	Module D - Toxicology 1 <i>Georgia Science Teachers Association, Macon, Feb 5-6, 2015</i>	
5	Feb 12	Module D - Toxicology 2 (exposing blackworms to toxic substances) Lab Report (see format in iCollege)	Lab Report due



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6	Feb 19	Module Energy 2 - Energy Audit (bring a copy of your home electric and gas bills for a 12-month period) Week 6-7: PASS Assessment 2 - Students will be able to use a topographic map to determine scale, elevation, slope and direction.	PASS Assessment 2 __ in iCollege
7	Feb 26	Tuesday February 24, 2015 – Student Study Day, no classes Thursday February 26 – Lab Midterm Purchase green scantron forms at GPC Bookstore for exam.	Lab Midterm
8	Mar 5	Thursday March 5, 2015 – Midpoint of the Semester Carbon, Climate, Energy 1 & 2 – Logical fallacies, and Carbon Cycle	
9	Mar 9-15	Spring Break - No classes	
10	Mar 19	Module F - Population - Birth & Death Rates <i>Geological Society of America Meeting, Chattanooga, March 19-20</i>	
11	Mar 26	Carbon, Climate, Energy 3 & 4 – Geologic Record of Past Climate, and Fossil Fuel Formation Week 9-10: PASS Assessment 3 - Students will be able to collect data and draw a graph correlating two variables.	PASS Assessment 3 __ in iCollege
12	Apr 2	Carbon, Climate, Energy 5 & 6 – Modern CO ₂ Accumulation, and Moving Forward: Evaluating Impacts of Modern-day Proposals Affecting the Carbon-cycle and Climate Week 12-13: PASS Assessment 4 - Students will understand the concepts of sampling and bias.	
13	Apr 9	Module E – Water – Exercise 1 (Outdoor activity. Class will walk to a stream behind the parking deck. Dress appropriately.)	PASS Assessment 4 __ in iCollege
14	Apr 16	Module E – Water – Exercise 2 (Keep a water diary for a week before this lab)	
15	Apr 23	Module E – Water – Exercise 3 (online activity)	
16	Apr 27-30	Thursday April 30, 2015 – Last day of classes Lab Final Exam	Lab Final Exam



Expected Educational Results:

1. Apply the scientific method and procedures to investigate a question, analyze data, and arrive at a conclusion.
2. Use laboratory techniques including the accurate recording of observations and measurements and the manipulation of data through graphing techniques and mathematical analysis.
3. Characterize some of the critical processes for the proper functioning of Earth's natural environments found within the hydrosphere, atmosphere, biosphere and geosphere.
4. Utilize quantitative and qualitative methods to determine the human impact on the environment and to assess the effects of the growing population of humans on Earth.
5. Develop a greater understanding of the current rate of use of Earth's resources and the problems associated with finding sustainable practices regarding future supplies of food and energy.
6. Interpret maps as models of the earth.

General Education Outcomes:

This is a laboratory course. This course directly involves the use of scientific inquiry, observations, and analyses in the quest to understand human interactions with the Earth's natural environments.

This course has primary responsibility for the General Education Outcome, ***"Students apply scientific reasoning and methods of inquiry to explain natural phenomena"***. The performance of the weekly activities and experiments will provide experience in applying scientific inquiry.

General Education Outcome, ***"Students demonstrate the ability to interpret and analyze quantitative information; apply mathematical principles and techniques; and to use mathematical models to solve applied problems"***, is supported throughout the course through calculating, graphing, mapping, and modeling.

General Education Outcome, ***"Students demonstrate effective problem-solving and critical thinking skills through interpreting, presenting or evaluating ideas"***, is an integral part of the course as environmental problems are defined and data are gathered to provide the basis for making informed proposals and responses.

Course Content:

The course shall consist of 4 laboratory modules of three exercises each. The required Basic Skills Module and three (3) additional modules selected from those listed below.



Basic Skills Module

Exercise 1: Sampling Techniques

Exercise 2: Hypothesis Testing and Analysis of Data

Exercise 3: Mapping Techniques

Ecology Module

Exercise 1: Site Survey and Background Research

Exercise 2: Vegetation Analysis

Exercise 3: Animal Survey

Energy Module

Exercise 1: Energy Basics

Exercise 2: Energy Audit

Exercise 3: Solar Energy

Toxicology Module

Exercise 1: Introduction to Toxicology

Exercise 2: Dose Response Study

Exercise 3: Mutagens

Water Module

Exercise 1: Water Sources

Exercise 2: Water Quality

Exercise 3: Water Treatment

Or Pending Modules. (Carbon and Climate).

Information on Performance Alert for Student Success (PASS):

Academic success is a top priority at GPC. Activities have been designed to alert both instructor and student in a timely manner if sufficient progress on certain core concepts is not being made. A performance alert for student success (PASS) will be sent to academically struggling students throughout the semester to inform students of their status in the course and to provide additional resources for assistance. The notification enables students to address any academic weakness that could affect their successful completion of the course. If a student receives a PASS alert, the student should meet with the instructor to discuss their performance in the course and to design an improvement plan. PASS alert messages will be sent via email and by SMS text messaging.

Core Concepts and PASS for this course

Concept 1 (week 3): Students will demonstrate an understanding of how science progresses through the scientific method.

Concept 2 (week 6): Students will be able to use a topographic map to determine scale, elevation, slope and direction.

Concept 3 (week 9): Students will be able to collect data and draw a graph correlating two variables.

Concept 4 (week 12): Students will understand the concepts of sampling and bias.



Student contact information:

Please check your contact information (email and phone numbers) in the GPC's SIS (Student Information System) and make sure that your contact information is up to date and correct. I may need to call or email you at some point this semester, so it is very important that your information is correct. . Also, please complete your Profile in iCollege.

Preparing for lab each week and submitting your lab assignments:

- Please read the lab each week before coming to lab, and take the online lab quiz on the written material, in iCollege or there may be a pre-lab quiz over the material during lab time.
- Lab assignments are done during lab and turned in at the end of class. Some assignments may be done at home.
- **Late work will not be accepted.**
- **There are NO makeup labs if you miss lab class.**

Exams and Quizzes:

There will be a Lab Midterm and a Lab Final Exam. The Lab Final Exam is given the last week of classes. THE FINAL EXAM IS CUMULATIVE AND COMPREHENSIVE!!

There is a pre-lab quiz to be taken online in **iCollege** before coming to class, most weeks. In addition, some quizzes will be given in class. All quizzes are **closed book, closed note** quizzes. Students are not to give or receive help on the quizzes.

Policy on make-up quizzes and exams, and late assignments

Policy on make-up quizzes and exams. Make-ups will be granted only in rare circumstances involving serious illness, incapacity, tragic events, or some other grave matter. Vacations, weddings, babysitting, computer or internet outages, or car trouble, are NOT valid excuses. All requests for a make-up quiz or exam must be **in writing** and must include appropriate **documentation from a verifiable source**. (Yes, I will check to verify any excuse). Make-ups are extremely unlikely. There are no re-do's of quizzes or exams.

There are no makeups for Lab Exams, the only possible exception being if there is another course section that will be taking the exam on a different date (i.e., online lab exams).

Policy on late assignments: Assignments done in class are due at the end of class unless another date is specified by the instructor. Assignments are due on or before the due date specified in class or in iCollege. Late work is penalized at 10% per week, and may not be accepted (i.e., grade of zero) if there is not a documented, valid, verifiable excuse. For late

work, if graded papers for that particular assignment have been returned to other students, your late work cannot be accepted and will be a zero.

Vacations, weddings, babysitting, computer or internet outages, or car trouble, are NOT valid excuses. There are no re-do's of assignments.

Grading:

40% Labs
10% Formal Lab Report on worm lab
10% Quizzes
20% Laboratory Midterm Exam
20% Laboratory Final Exam

Grading scale: 90-100% A, 80-90% B, 70-80% C, 60-70% D, below 60% F

Grade Reporting: Course grades will not be mailed. Grades are available online at the end of the semester at <http://sis.gpc.edu>. Grades will be posted in password-protected iCollege. No grades are discussed by GPC email or outside email.

Extra Credit: There may be opportunities for extra credit projects or papers during the semester. Up to five earned extra credit points can be applied to your final class average. Submit your ideas for extra credit by e-mail to your instructor for approval of topics. Extra credit exercises must be done independently from other students. All extra credit must be typed.

Policy on Academic Honesty:

- **Even though you may do lab work at a table with a group, ALL STUDENTS ARE RESPONSIBLE FOR DOING THEIR OWN WORK** and are not to copy answers verbatim (misspellings, poor handwriting, bad grammar and all) from their lab partners and tablemates. All work must be thought through independently and put into your own words. No copying of labs. Do your own work. You are cheating yourself out of the opportunity to learn something when you copy.
- Academic dishonesty (cheating and plagiarism) will not be tolerated. Read carefully the sections on Academic Honesty in the GPC Policy Manual.
<http://depts.gpc.edu/governance/policies/New100/101.pdf>
- Students shall not attempt to defraud, deceive or mislead an instructor in arriving at an honest grade assessment.
- Cell phones, laptops and other devices that could be used to record answers are to be turned OFF and put away in all classes in any class testing situation (quizzes, tests, etc.). Students may NOT use cell phones as calculators. If you need a calculator for quiz or a test, you should bring a separate calculator. Everything must be off the table except materials needed for testing.
- **A report will be filed for any alleged or suspected cheating or plagiarism incident.** (See procedure in Academic Affairs Policy Manual <http://depts.gpc.edu/governance/policies/other/toc.html#New100>.) Penalties may include suspension or expulsion.



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- Cheating on an exam will jeopardize your grade and may get you expelled; if you receive a zero on an exam it will be extremely difficult to receive a passing grade for the course.

Class and attendance information:

- Attendance is mandatory. If you miss a class, YOU are responsible for ALL the material and assignments associated with that particular lecture. Check with the instructor or a classmate about the class material you missed.
- You MUST sign the attendance sheet at each class. If you don't sign the sheet you may accidentally be removed from the class as a NO SHOW.
- **It is strongly advised that you set up a regularly scheduled time to work on the course each week.** You should plan on **at least 6 hours per week studying for this course.** (3 hours in class, and 6 hours preparing and studying outside of class.) This includes:
 - **Reading and responding to your internal iCollege e-mail and GPC e-mail daily.**
 - **Reading all postings on the class Discussion area daily.**
 - **Posting to the Discussion area** for required postings, general questions related to course work, and to participate in discussions.
 - **Reading online labs or course notes** (at least weekly, as assigned). Three complete readings through the material are generally required for to take you from chaos to confusion to clarity to mastery.
 - **Reading the Lab Manual** chapters corresponding to the assigned class notes (at least weekly, as assigned). **Take notes** on all readings.
 - **Taking quizzes**
 - **Working on homework** assignments, papers, reports, or projects as assigned, and submitting them by the deadline dates.
- If you must be away for a certain period of time, please let the instructor know by email in advance.
- Take notes in class when your instructor is lecturing or talking to you about the class.

General class information and college policies:

- **NO-SHOWS:** Students who never attend a class by the end of the first two weeks of the term will be reported to the Registrar for non-attendance. Students who are reported for non-attendance will be dropped from the course. **If you are dropped from the class for non-attendance, you will lose your financial aid, and you may be required to repay any financial aid you have received.**
- If you choose to stop attending class and/or logging in to iCollege, complete the withdrawal process through the Registrar's Office by the specified dates, or you will receive an "F" for the course.
- **Students' academic success is the major priority of the College.** Because regular participation enhances the learning process, students are expected to adhere to the attendance policy set forth by the College and individual faculty members. Differences in content and teaching styles exist among courses, which can impact students' learning. Therefore, students are strongly encouraged to attend all classes to better prepare them for assignments, tests, and other course-related activities. Students are accountable for assignments and material covered during an absence.
- If you go by more than one name in college records (such as a maiden name and a married name, with one name in SIS and another name in iCollege), please be sure that your instructor knows who you are

(both names) so that you are not accidentally dropped from the course for non-attendance. Check with the instructor again around the end of the second week to be sure that you have not been dropped for non-attendance.

- **Disruptive Student Behavior in an Academic Setting** Policy #113. Disruptive behavior is defined as any behavior that interferes with the collegiate learning process. Determination of a behavior as disruptive is at the discretion of faculty or staff. <http://depts.gpc.edu/governance/policies/New100/113.pdf>
Disruptive behavior includes but is not limited to the following:
 - **Tier I: Nuisance behavior that is non-threatening to the instructor or students.**
 - Entering class late, leaving early, or leaving and re-entering class without permission;
 - Eating or drinking in class without permission;
 - Sleeping in class;
 - Speaking without permission;
 - Using inappropriate electronic devices.
 - **Tier II:** Behavior that is clearly disruptive and possibly threatening.
 - Disputing the authority of faculty or staff;
 - Arguing persistently with faculty, staff, or other students;
 - Etc. See further details online.
- **Students are prohibited from using cell phones and other electronic communication devices in classrooms, laboratories, libraries, learning and tutoring centers, testing centers, and other areas where posted.** <http://depts.gpc.edu/governance/policies/New200/206.pdf>. Students who violate the Cell Phone Use Policy may also be subject to formal charges of academic dishonesty, class disruption, or other charges as documented in Policy 218 Student Code of Conduct. Exceptions to the Cell Phone Use Policy, due to special circumstances, shall be at the discretion of the supervisor in the individual area.
Do not plug in and charge your cell phone in the classroom.

iCollege (D2L) Information:

- This class uses iCollege (D2L) to enhance the on-campus course. iCollege is an online course management system that runs with a web browser. Some quizzes will be given online in iCollege. iCollege supplies a discussion/announcements area, internal class e-mail, quizzes, and course materials.
For basic information, see the GPC iCollege page at the following address:
<https://gpc.view.usg.edu/> .
Browser Check: You must check your web browser with the System Checker to determine whether your computer and web browser will function properly with iCollege, the course management software. <http://www.usg.edu/usgweb/d2lchecker/>
Online iCollege Orientation: You must also work through the iCollege Student Orientation, which will introduce you to iCollege. The link to the Orientation is on the iCollege page, or go directly to http://depts.gpc.edu/icollege/d2l/orientation/student_orientation_updated_0411.html. You will need Adobe Flash Player to watch the video.
Obtaining your iCollege password: On or around the first day of classes, go to <http://www.gpc.edu/getmylogin> and follow the directions on the screen. You will need to enter your name, last 4 digits of social security number, GPC student number (900 number) and birth date. Read and agree to the computer usage policies. Click submit. Please write down your user name and password for your iCollege course(s). You may access this information 5 times, and after that



you will have to call the Educational Technologies helpdesk for assistance at (678) 891-3460. iCollege IDs may not be available before the first day of classes.

Accessing your course notes using iCollege: <https://gpc.view.usg.edu/>

Technical Assistance: For technical assistance, please visit <http://depts.gpc.edu/icollege/d2l/help.html>

Logging Out of iCollege: Be sure you log out or close all copies of your web browser, so that others using the computer after you will not have access to your password-protected files. If you do not exit ALL copies of your web browser, someone using the computer after you could post messages to the e-mail and bulletin board under your identity!!

Email policies:

- **All students must access their college-assigned GPC email account.** Check your GPC email EVERY DAY. Notifications such as financial aid status, registrations dates, and payment deadlines will be sent to student email. Students should be aware that certain communications may be time-critical and that their email account should be checked on a regular basis. Georgia Perimeter College will provide all students with an account on the GPC email system upon admission to the college. **Email messages sent by GPC to GPC student email accounts will constitute an official means of communication. The college considers students to be duly informed and in receipt of communications sent to their respective account via the GPC email system.**
- **See student email policy:** http://www.gpc.edu/oit/policies_procedures/technology_security/Student%20E-mail%20Policy%20Feb242009%20Rev%201.pdf. This says, in part:
Confidential student information may be accessed only through secure college systems, which are password protected (like iCollege). Students may receive email correspondence directing them to an authentication site where a student ID and PIN is required to access confidential information. **PASSWORDS MUST NOT BE SHARED WITH OTHER PEOPLE. Confidential information (such as your grades) will not be available via email.**
Georgia Perimeter College will provide all students with an account on the GPC email system upon admission to the college. **Email messages sent by GPC to GPC student email accounts will constitute an official means of communication. The college considers students to be duly informed and in receipt of communications sent to their respective account via the GPC email system.**
All students must access their college assigned email account on a regular basis. Notifications such as financial aid status, registrations dates, and payment deadlines will be sent to student accounts. Students should be aware that certain communications may be time-critical and that their email account should be checked on a regular basis.
- Grades cannot be transmitted to students via email at GPC. iCollege must be used for all grade questions.
- **E-mail response time:** Your instructor will generally reply to your e-mail within 24-36 hours, except if she is out of town (which will be announced in iCollege), and except on weekends, breaks and holidays. Your instructor may or may not check iCollege on some weekends, depending on her schedule, so do not expect a prompt reply if you post Friday afternoon or Friday night. Your instructor may not see your message until Monday. Your instructor checks GPC e-mail frequently during office hours.



Withdrawal Policy:

- The midpoint of the semester is **Thursday March 5, 2015**.
- A student who officially withdraws by the midpoint of the course will receive a grade of "W". A student who withdraws after the midpoint of the quarter will receive a "WF" unless approval as a hardship withdrawal is received from the Dean. The instructor cannot withdraw students.
- If you choose to stop logging in to iCollege, or to stop reading and responding to e-mails from the instructor, you must complete the withdrawal process through the Registrar's Office by the specified dates, or you will receive an "F" for the course.
- If you are thinking about withdrawing, please let the instructor know in advance.

Tobacco and Smoke-Free Campus Policy:

Effective [October 1, 2014](#), Georgia Perimeter prohibits the use of tobacco products on any property owned, leased, or controlled by GPC. All faculty, staff, students, visitors, vendors, contractors, and all others are prohibited from using any tobacco products while on GPC property. "Tobacco Products" is defined as cigarettes, pipes, cigars, all forms of smokeless tobacco, clove cigarettes and other smoking devices that use tobacco such as hookahs or simulate the use of tobacco such as electronic cigarettes. *Violations of the smoking policy will be handled under the GPC Student Code of Conduct.*

Statement of Non-discrimination: Georgia Perimeter College supports the Civil Rights Act of 1964, Executive Order #11246, Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act. No person shall, on the basis of age, race, religion, color, gender, sexual orientation, national origin or disability, be excluded from participation in, or be denied the benefits of, or be subjected to discrimination under any program or activity of the college.

Any individual with a grievance related to the enforcement of any of the above provisions should contact the Assistant Director of Human Resources, Ombudsperson.

Americans with Disabilities Act Statement: If you are a student who is disabled as defined under the Americans with Disabilities Act and require assistance of support services, please seek assistance through the Center for Disability Services. A CDS Counselor will coordinate those services.

Equal Opportunity Statement: No person shall, on the basis of age, race, religion, color, gender, sexual orientation, national origin or disability, be excluded from participation in, or be denied the benefits of, or be subjected to discrimination under any program or activity of Georgia Perimeter College.

Affirmative Action Statement: Georgia Perimeter College adheres to affirmative action policies designed to promote diversity and equal opportunity for all faculty and students.

You are expected to read and abide by the general policies of Georgia Perimeter College, as stated in the College Student Handbook, College Catalog and in the GPC Policy Manual <http://depts.gpc.edu/governance/policies/other/toc.html#New100>.



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Syllabus dated **January 14, 2015.**

Page created by [Pamela J. W. Gore](#)

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