Guys in Front

My name is Greg Langkamp, instructor of mathematics. My office is SAM 413. My telephone is 587-3810. I have voice mail, so if I'm not in my office, leave a message and I'll get back to you (beep). My email address is glangkamp@sccd.ctc.edu

My name is Joe Hull, instructor of geology. My office is SAM 414. Telephone is 587-4905. My e-mail address is jhull@sccd.ctc.edu

Web Sites

The website for basic course mechanics and information can be found at http://seattlecentral.org/faculty/jhull/6bill.html

The website for our textbook, online applets and other resources is: http://enviromath.com

The website for our Quantitative Environmental Learning Project is: http://seattlecentral.org/qelp

Office Hours

Langkamp's office hours are M-Th 9-9:45 a.m., or by appointment. I am around most afternoons, please knock on my door any time! I will also be working in MathPath on Mondays 2-3pm (SAM102)

Hull’s office hours are M-Tu 8:30-9:30 a.m and W-Th 1-2. You can drop by later in the afternoon, I’m usually around. And you can make appointments for other times.

Division of Science and Mathematics

Perhaps there are questions that we cannot answer. Our omniscient secretary supervisor is Ms. Carole Schmidt, in the division office (SAM 110) at 587-3858. The head of our division is Dr. Wendy Rockhill, Dean of Science and Mathematics.

Texts (required)

Miller, G. T. and Spoolman, S. (2009), Sustaining the Earth; 9th edition, Thomson/Cengage, 350 pages+. paperback. ISBN 0-495-55687-4. Prior editions are OK, but you are on your own for reading assignments. This edition of Miller is the paperback, black and white version, not the more expensive cloth/color versions. The 9th edition has penguins on the cover.


Supplies

Pens/pencils. Math homework done in pencil. An English/metric dual ruler with fine divisions. Miscellaneous graph paper.
Field trips will require appropriate outdoor clothing. Specific information will be presented in class.

The TI-83/84 graphing calculator is required. Calculator rentals are available; pay $20 at the school's cashier, bring your receipt to Langkamp, and he will issue you a calculator for the quarter. Put a detachable sticker with your name on your rental for quick ID. For owners of calculators, consider engraving your machine - they do get stolen.

Class Times
Classes are MTWTh, 10-11:50 a.m., 2 hours, with break, in SAM 201. One or two times during the quarter we'll be meeting for lecture in other rooms, to work with networked computers. We'll talk about the material for the week, show slides, do problems, point at maps, give demonstrations, poke the calculator, ask and answer questions, etc. etc. Interaction, questions, declarations, suggestions, arguments, etc. from you are encouraged, expected, required!

The class is broken into 7 units of study, each of which lasts about 5 class days (except for unit #7). Each unit will contain a project that students work on with one partner. There will be some class time to work on the project (see schedule) but much of it will need to be done outside of class. Each unit will end with a 30-minute quiz.

Field Trips
There are two (2) required field trips. Each field trip lasts all day Saturday OR all day Sunday. We will pass around signup sheets, probably during the second week of class. The class will be split in half; half Saturday, half Sunday. We will work with you on scheduling, and things usually work out, but you may not get your first choice of Saturday or Sunday. The partner(s) you work with on the field trip will be your partners for the project the following week.

The first field trip (Rivers and Streams) is either May 1 (Sat.) or May 2 (Sun.).
The second field trip (Forests and Ecosystems) is either May 22 (Sat.) or May 23 (Sun.).

Safety
The classroom is located on the 2nd floor. There are two stairwells that take us directly out of the building (use the north stairwell if possible). During an earthquake, Duck Cover and Hold. Get under the desks. Get away from the windows and cabinets. Don't panic! After the shaking stops, evacuate the building SLOWLY.

Special Needs Students
If you need course adaptations or accommodations because of a disability; if you have emergency medical information to share with us; or if you need special arrangements in case the building must be evacuated, please see us during our office hours as soon as possible. Remember, we're here to help.

Library
The textbooks will be in the library on 2-hour reserve. There may be other course materials on reserve; we'll let you know. Our library also contains a variety of books on mathematics and environmental science.
Days to Remember
05 April, Monday, is first day of class
09 April, Friday, last day for 100% refund less fees
16 April, Friday, last day to add a class, or drop without permission ("10th Day")
23 April, Friday, last day for 50% refund
01 and 02 May Saturday and Sunday, field trip days
22 and 23 May Saturday and Sunday, field trip days
28 May, Friday, last day to drop, with permission
31 May, Monday, holiday, Memorial Day
15 June, Tuesday, last class meeting

Evaluation: Lectures and Books
Your knowledge and comprehension of the lecture material and book assignments for each unit will be determined by a quiz at the end of each unit, 10:00 at the start of class. The quiz will last about 30 minutes, and will cover the lecture material of the previous unit, and the assignments (readings in both Langkamp/Hull and Miller, and problem sets) for the previous unit. About half the quiz will cover MATH and about half the quiz will cover ENV/GEOL, but remember, this is an integrated course. The quizzes will cover the previous unit’s material, but some older stuff will sneak in, as (of course) new knowledge is built on old.

There will be a total of 7 quizzes. Each quiz is worth 40 points. If you do not take any of the other 7 quizzes, you will receive a zero (0) for any of those quizzes. You get to drop your lowest quiz – so in case you are sick on a quiz day, take a 0 and stay home! Total points = 240.

Evaluation: Projects
Your knowledge and comprehension will also be determined by the project for each unit. Each project is due at the end of the unit, promptly by the beginning of class (10:00 a.m.). There will be a total of 9 projects (7 unit projects and 2 field projects). Each project is worth 50 points. If your project is late, you will receive a zero (0). You get to drop the lowest project score. Total points = 400.

Evaluation: Geol 110 Project
Students enrolled in Geol 110 (Environmental Geology), the lab science, will do an extra project on energy flow in the United States worth 75 points.

Evaluation: Math Homework
Each week you will be required to work and solve a handful of mathematics problems selected from the textbook or handouts. The problem sets are due at the end of the unit, promptly by the beginning of class (10:00 a.m.).

There will be a total of 7 problem sets. Each problem set is worth 15 points. If your problem set is late, you will receive a zero (0), but you get to drop your lowest score. Total 90 points.

Evaluation: Field Trip Attendance
You will lose 40 points for each field trip you miss, for whatever the reason.
Grades
You will receive one grade for this integrated course; you will receive the same grade in MATH 107 and ENV 150 or GEOL 110.

Grades are determined by your total points earned. 95% is a 4.0 and 50% is a 0.7. All other grades fall in between. The table below gives the cutoffs for each grade.

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WAMAP: Grades and other course materials will be posted at the course WAMAP site. Please see our separate handout for how to access this site.

Cheating: Cheating includes, but is not limited to, copying another's work on an in-class exam or quiz, or turning in another person's work as one's own for a homework or other hand-in assignment. Anyone caught cheating will get a 0 on that particular assignment. Depending on the circumstances, that person may also receive a 0.0 for the class, and/or be reported to the SCCC Dean of Students. **Do not risk your academic career by cheating!**

Exams
There are NO EXAMS in this course; no midterms, no finals.

Extra Credit
There is no extra credit. NO EXTRA CREDIT. There are no extra reports, etc. etc.

Makeups
There are no makeups for quizzes, projects, math homework, or fieldtrips. NO MAKEUPS.

Attendance
We do not take attendance, except for the first couple of days. Sometimes students must make "life choices" and miss a class. For this reason we allow students to drop their lowest quiz, lowest project, and lowest homework. However, you will lose 40 points for each field trip you do not attend no matter the reason.

It is our long experience that those who do not attend class regularly do not learn much, and do not pass. As a wise student once said, "Attending class means less studying and easier studying."

4
**Instructional Topics and Textbook Chapters**

*(please consult the Daily Planner for dates)*

<table>
<thead>
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<th>Unit</th>
<th>Topics</th>
<th>L/H**</th>
<th>Miller**</th>
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<tbody>
<tr>
<td>1</td>
<td>Units, Percentages, Computation</td>
<td>Atmosphere, Glaciers</td>
<td>1,2</td>
</tr>
<tr>
<td>2</td>
<td>Graphing, Linear functions</td>
<td>Biota, Ecology</td>
<td>3,4</td>
</tr>
<tr>
<td>3</td>
<td>Exponential functions</td>
<td>Food, Soil</td>
<td>5</td>
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</tbody>
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**1-2 May**  
Field Trip #1, Rivers, and River Project

| 4    | Intro to Difference Equations              | Populations, People | 7 | 4 |
| 5    | DE: Equilibrium Values                     | Toxic Waste         | 8 | 11,13 |

**22-23 May**  
Field Trip #2, Trees, and Tree Project

| 6    | DE: Logistic                               | Forests, Sustainability | 9 | 4,6,3 |
| 7    | Fundamentals of Statistics                 | Energy                | 11,12 | 9, 10 |

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**The chapters listed for Langkamp and Hull, and Miller, are just a rough guide.** We will give specific reading assignments in class. You will not read every page in every chapter.

† **Disclaimer**  
All topics, materials, dates, times, etc. etc. are subject to change at any time, etc. etc., without warning, etc. etc., depending on class conditions, etc. etc.

**Outcomes**  
To learn more about college level mathematics and environmental sciences, to develop appreciation for and prowess at applying college level mathematics to environmental issues and problems, to increase your skills and abilities in quantitative reasoning, to expand your decision making process by emphasizing quantitative analysis, to enjoy the science and mathematics in this course, to enjoy and benefit from cooperative learning, and to enjoy and benefit from the hands-on learning in the classroom and the field.