

Environmental Technology 107A

INTRODUCTORY PHYSICAL GEOGRAPHY

Winter 2003

Chris Ayles



In case you're worried about how thin this manual is, relax: you'll be getting reams of free labs handed to you all term long. What a deal!

The price of this wee volume will help defray the cost of printing those labs and keep the ET program afloat financially. And you can watch proudly (or cringe) as it slowly grows...

Environmental Technology 107A

INTRODUCTORY PHYSICAL GEOGRAPHY

Course Outline, Winter 2003

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COURSE DESCRIPTION

This 10-week crash course will provide students with a first exposure to physical geography. The material is primarily theoretical, and meant to lead into the more practical ENVR 207 (Applied Geomorphology), as well as providing useful geographic knowledge that good environmental technologists should know. Topics will include earth systems, atmospheric processes and weather, and some basics of biogeography and hydrology. Through weekly lab exercises, students will get to try some practical applications of lecture concepts. More detail on the lithosphere will follow in ENVR 107B, the course which follows this one.

MY ATTITUDE

My classes tend to be quite informal, and I encourage participation and discussion. My goal is to have you think and understand, so speak up if you are confused! Still, I take the material seriously and expect you to do the same. Group work is encouraged, and you should help each other learn. But this does not mean you can copy! Each student must do their own individual lab reports.

LECTURES

The format for this class is lectures on Monday/Tuesday, labs on Friday. Lectures will generally provide the theory you need to complete that week's lab, so attendance is strongly suggested. I use printed overheads a lot, and I will make these available at www.camosun.bc.ca/schools/artsci/envirotech/ayles.php. (I know it's a long URL; I had no choice...) I will also place a reserve binder in the library, which will contain overheads, answer keys, and so on.

When possible, I will try to diversify the lectures with videos, slides or guest speakers.

LABS

You must purchase a lab manual from the book store! It is exceedingly thin, but will function as a proof-of-purchase when I hand out labs throughout the term.

On lab days, you should bring pencils, paper, graph paper, calculator and ruler. Again, you may work in groups, but must each do your own work and submit your own report.

READING

Readings form an essential part of this course: we have a lot of material to cover in a very short time, and lectures alone just won't cut it. The textbook sections I have assigned provide depth and context that are indispensable to your understanding of the course material, and they will be tested.

The required textbook for this course is:

Christopherson, R.W., 2002. *Geosystems – An Introduction to Physical Geography*, 5th Ed. Upper Saddle River, NJ: Pearson Education, Inc., 660 pp. plus appendices.

This book is available in the book store, and there will also be reserve copies in the library. Used copies should also be easy to find. You are welcome to use an older version, but if you do, you are responsible for any differences in material from the new edition. Some required readings from other sources may pop up, and these will be placed in the reserve binder as needed. Do not steal the originals!

Specific reading requirements are provided below; these may be modified as the term goes on.

EVALUATION

Lab performance will be evaluated based on thoroughness, neatness and accuracy. Attendance during labs and tests is mandatory; illness must be proven with a note from a doctor. Unexcused late assignments will have 10% deducted per day late, and will not be accepted at all after I have returned them.

<u>Assignment</u>	<u>Value</u>
Labs (6% each)	42%
Midterm Exam	23%
Final Exam	<u>35%</u>
	100%

The midterm and final exams will be a combination of multiple choice, short answer and long answer questions. They will emphasize the lecture material, though lab material will also be drawn upon. The midterm will include all material up to and including the lectures on February 3 and 4. The final will be cumulative, though material from the second half of the course will be more heavily weighted.

COURSE SCHEDULE

schedule is subject to change

<u>Week of:</u>	<u>Mon / Tue Lecture Topic</u>	<u>Friday Lab</u>	<u>Reading</u>
Jan 6	Intro / Earth Systems	Lab 1	pp. 2-24.
Jan 13	Atmospheric Structure, Radiation	Lab 2	pp. 43-59, 65-72, 93-108.
Jan 20	Pressure and Wind	Lab 3	pp. 123-128, 143-166, 170- 172.
Jan 27	Humidity, Clouds and Rain	Lab 4	pp. 179-204.
Feb 3	Air Masses and Weather	Midterm Exam	pp. 211-227
Feb 10	<i>Extra Reading Time</i>	<i>Reading Break</i>	<i>(pp. 281-308 optional *)</i>
Feb 17	Hydrology	Lab 5	pp. 245-248, 259-266.
Feb 24	Biogeochemical Cycles	Lab 6	pp. 587-607.
Mar 3	Theory of Tolerance, Biomes	Lab 7	pp. 275-277, 280-281, 600- 602, 625-647.
Mar 10	Intro to Geomorphology	Final Exam	pp. 323-329, 340-352.

** pp.281-308, on the Köppen climate classification system, are not required, but may help you further understand biomes.*