CAMOSUN COLLEGE	***School of Arts & Science*** ***SOCIAL SCIENCES DEPARTMENT*** **GEOG 204** **Atmosphere and Biosphere** **Fall 2007**

COURSE OUTLINE

1. Course Description

This course will provide students with a first exposure to two of the major subjects of physical geography: Earth's atmosphere and biosphere. The material is primarily theoretical, but a substantial lab component will introduce some practical skills relevant to these subjects. Topics will include earth systems, atmospheric composition and structure, atmospheric processes and weather, climate classification and change, soil processes and classification, and ecosystem structure, function and classification.

My classes tend to be quite informal, and I encourage participation and discussion. My goal is to have you think and understand, so please speak up if you are confused! 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 assignment reports, and if I catch people copying, all parties involved will get a mark of zero.

Note: The official Approved Course Description is available on the web at http://www.camosun.bc.ca/calendar/current/web/geog.html#GEOG204

- *Please note: this outline will be electronically stored for five (5) years only. It is strongly recommended students keep this outline for your records.*

2. Instructor Information

Instructor:	Chris Ayles
Office Hours:	Mon. 9:30 – 10:20. Tue. 11:30 – 12:30. Wed. 11:30 – 12:30. Thu. 12:30 – 1:30. Other times available by chance or appointment.
Location:	Fisher 342B
Phone:	370-3393
Email:	cayles@camosun.bc.ca
Website:	cayles.disted.camosun.bc.ca

3. Intended Learning Outcomes

Upon completion of this course the student will be able to:

1. Describe the structure and function of Earth's atmosphere and related weather and climate systems.

2. Describe the distributional characteristics of global biomes, specifically their evolutionary history, extinction vulnerability and local characteristics.

3. Interpret meteorological, climatological and biogeographical data to display and integrate this information.

4. Course Materials

(a)	Texts	Required: Christopherson, R.W. and M. Byrne, 2006. *Geosystems, Canadian Edition*. Toronto: Pearson Education Canada, 706 pp. plus appendices. • This book is available in the book store, and there will also be a reserve copy in the library. Older, non-Canadian versions are around, but ultimately you are responsible for the material from the new edition.
(b)	Other	Required: GEOG 204 Lab Manual.

5. Course Content

- **Lectures:** This class has two three-hour blocks on Mondays and Wednesdays. Usually, these will be evenly split between lecture and lab time. Lectures will generally provide the theory you need to understand the labs and pass the tests, so attendance is essential. I mostly use PowerPoint, and I will post basic lecture outlines on my web site: cayles.disted.camosun.bc.ca.

- **Readings** are an essential part of this course – they provide depth and context that are indispensable to your understanding of the course material, and they will be tested. Specific reading assignments are detailed below; these may be modified as the term goes on.

- **Labs:** There are ten labs. Each will be given roughly three hours of class time. **You must buy a lab manual at the bookstore!** You may work in groups, but each student must write their own individual answers unless instructed otherwise. Attendance of labs is crucial, and in some cases mandatory. No credit will be given for wrong answers or missed activities due to unexcused absence from lab. Labs are generally due the following period, and I reserve the right to impose a 10% per day penalty on late assignments. Late assignments will not be accepted after I have returned them marked.

  Labs often involve some basic math, including unit conversions, graphing and data interpretation. I will be happy to coach these skills. See the lab skills handout. On lab days, you should bring pencils, paper, graph paper, calculator and ruler. Some labs involve outdoor field work. Read the assignments ahead of time and be prepared with warm clothing, rain gear, snacks and water.

- **Weather Journal project:** Each student will monitor the local weather for a week, and analyze what happened using weather data and climate information. The project will be presented as a formal written report. See details in weather journal handout.

- **Exams:** There will be a midterm and a final exam. The format for these will be a combination of multiple choice, short answer and long answer questions. They mainly will emphasize the lecture material, though lab material will also be covered. The final exam will be cumulative.

- **Illness, etc.:** If you miss a lab or exam due to illness or some other serious reason, I must ask you to provide a doctor's note or other documentation. Otherwise, a mark of zero for the missed assignment will be given. Exams and field trips are hard to reschedule, so try not to miss them unless you are too sick to perform at a normal level. Students who miss an exam for a valid reason must contact me within 24 hours with an explanation. In such cases, one makeup exam time will be scheduled, and all students needing it will be expected to attend.

6. Basis of Student Assessment

Evaluation will be based on accuracy, thoroughness, and neatness. As a general rule, always show your work and keep track of units of measure! When I grade your work, I am looking for proof of your understanding, so do everything clearly and carefully – that way you may get partial credit, even for wrong answers. I endeavour to mark things fairly and consistently, but if you have a question about my assessment, feel free to come to my office and ask about it.

(a)	Labs	35% (3.5% each)
(b)	Weather Journal project	10%
(c)	Midterm exam	20%
(d)	Final exam	35%

7. COURSE SCHEDULE (Subject to change at instructor's discretion)**:**

Week of	Monday	Wednesday
Sep. 3	**Labour Day: no class**	Course Intro / Earth Systems *No lab* *Reading: Ch. 1*
Sep. 10	Atmospheric Structure & Composition *Lab 1: Radiation and Weather Data* *Reading: Ch. 2, 3*	Radiation and Temperature *Lab 1 cont'd* *Reading: Ch. 4, 5*
Sep. 17	Pressure and Wind *Lab 2: Temperature and Wind* *Reading: Ch. 6*	Atmospheric Circulation *Lab 2 cont'd*
Sep. 24	Atmospheric Humidity *Lab 3: Humidity and Uplift* *Reading: Ch. 7*	Clouds and Precipitation *Lab 3 cont'd*
Oct. 1	Weather Systems *Lab 4: Weather Maps* *Reading: Ch. 8*	Violent Weather *Lab 4 cont'd*
Oct. 8	**Thanksgiving: no class**	Ocean Currents (lecture and video) *No lab* *Reading: Ch. 6 (pp. 173-175)*
Oct. 15	Climate *No lab: review for midterm* *Reading: Ch. 10 (pp. 283-314)*	**Midterm exam** *No lab*
Oct. 22	Climate Change (lecture and video) *No lab* *Reading: Ch. 10 (pp. 315-325, Ch. 17 (pp. 578-583)*	*Lab 5: Data Analysis* *Meet in GP lab E113.*
Oct. 29	Soils (double lecture) *No lab* *Reading: Ch. 18*	Lab 6: Soil Analysis *Outdoor lab; meet in class.*
Nov. 5	Ecosystems *No lab (Weather Journal due Wednesday)* *Reading: Ch. 19 (pp. 623-634)*	Biodiversity and Succession *Lab 7: Biodiversity Movie Review* *Reading: Ch. 19 (pp. 644-660)*
Nov. 12	**Remembrance Day: no class**	Ecosystem Classification *Lab 7 cont'd* *Reading: Meidinger & Pojar Ch. 2*
Nov. 19	Biomes 1 *Lab 8: Ecosystem Maps* *Reading: Ch. 20*	Biomes 2 *Lab 8 cont'd*
Nov. 26	Historical Biogeography *Lab 9: Island Biogeography* *Reading: Strahler & Archibold pp. 554-564*	Energy and Nutrient Cycles *Lab 9 cont'd* *Reading: Ch. 19 (pp. 634-643)*
Dec. 3	*Lab 10: Plant Identification and Cover* *Outdoor lab; meet in class*	Review for final exam *No lab*
Exam Week	**Final Exam**	

8. Grading System

Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

Temporary Grades
Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy at **camosun.ca** or information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	*Incomplete*: A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	*In progress*: A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
CW	*Compulsory Withdrawal:* A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy E-1.5 at **camosun.ca** for information on conversion to final grades, and for additional information on student record and transcript notations.

8. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College calendar, at Student Services or the College web site at camosun.ca.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**.
It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services and on the College web site in the Policy Section.