

School of Arts & Science CHEMISTRY AND GEOSCIENCE DEPARTMENT **GEOS 100-001 Physical Geology**

Fall 2009 (Sep-Dec)

COURSE OUTLINE

The course description is online @ http://camosun.ca/learn/calendar/current/web/geos.html

 Ω Please note: the College electronically stores this outline for five (5) years only. It is strongly recommended you keep a copy of this outline with your academic records. You will need this outline for any future application/s for transfer credit/s to other colleges/universities.

1. Instructor Information

(a)	Instructor:	Dr. Tark Hamilton		
(b)	Office Hours:	M-T:10:30-11:20 & W-Th: 13:30-14:20 and 15:30-16:20		
(c)	Location:	F344A		
(d)	Phone:	250-370-3331	Alternative Phone:	
(e)	Email:	hamilta@camosun.bc.ca		
(f)	Website:	http://hamilton.disted.camosun.bc.ca/ (for 2 nd year courses)		

2. Intended Learning Outcomes

(No changes are to be made to these Intended Learning Outcomes as approved by the Education Council of Camosun College.)

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

- 1. Analyze minerals for common physical properties.
- 2. Identify common rock-forming minerals on the basis of their properties.
- 3. Infer how samples of some rocks have formed.
- 4. Infer the relationship of rock-forming processes to plate tectonics.
- 5. Describe and interpret textural features of6. Describe compositional features of rocks. Describe and interpret textural features of rocks.
- 7. Classify common rocks based on texture and composition.
- 8. Apply techniques to determine the chronological order of events in Earth's history.
- 9. Calculate absolute ages of Earth materials and events.
- 10. Identify common geologic structures and use symbols to represent such structures on maps.
- 11. Identify, describe and interpret geological structures in three dimensions.
- 12. Determine the relationship of geological structures and plate tectonic boundaries.
- 13. Determine the location of an earthquake from seismic data.
- 14. Use seismograms to infer relative earth movements on faults.
- 15. Relate the nature and distribution of major earth features such as mountains, volcanoes and earthquakes to plate tectonics.

3. Required Materials

- (a) Text: Tarbuck, E.J., Lutgens, F.K., Tsujita, C.J. and Hickock, (2007) An Introduction to Physical Geology, 2nd Canadian Edition, 602 p. plus Earth: Animations Library on CD ROM. (note: this is a new book with >40% new content and Canadian examples. All of my test questions are based on this text as I wrote the entire testbank.)
- (b) Laboratory Manual: Busch, R.M. and Tasa, D. (2009) AGI/NAGT Laboratory Manual in Physical Geology, 308 p. plus graphs and foldouts, 8th edition, Prentice Hall
- (c) Personal Lab Materials and Supplies: Hand lens (needed in first 4 labs and on field trips), coloured pencils (needed for all labs for drawing and colouring), protractor, ruler, drawing compass, calculator
- (d) Other: Recommended reading of other geology texts on reserve, a geological glossary (dictionary), a mineral and rock identification book and web based research, readings, real and virtual field trips.

Course Content and Schedule

(This section can include: class hours, lab hours, out of class requirements and/or dates for quizzes, exams, lectures, labs, seminars, practicums, etc.)

- (a) Lectures: 12:30-13:20 M-F300, T-F338 & W-F210
- (b) Lab: 12:30-15:20 Th in F300 this period is also used for tests and field trips as scheduled
- (c) Field Trips: 1-2 scheduled in lab periods, 1-2 as scheduled on weekends as a full day excursion

5. Basis of Student Assessment (Weighting)

- (a) Assignments: Weekly lab attendance and lab reports due at beginning of following lab period. These plus mineral and rock quizzes and field trip attendance constitute 25% of course mark.
- (b) Quizzes: (1) mineral identification quiz in hour 1 of lab period week about 4-5, (1) rock identification quiz in hour 1 of lab period week about 9-10 these 2 quizzes each count the same as 2 lab reports in weight, and Intermittently as Pop-Quizzes on Monday or Wednesday in lecture to test currency with readings.
- (c) Exams: (2) 2-hour midterms scheduled at the beginnings of lab periods (20% each) plus (1) 3 hour final comprehensive exam as scheduled by registrar (35%)
- (d) Field Trips: 1-2 scheduled in lab periods required, 1-2 scheduled on weekends as full day outings

6. Grading System

Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	Α		8
80-84	A-		7
77-79	B+		6
73-76	В		5
70-72	B-		4
65-69	C+		3
60-64	С		2
50-59	D	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.	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 E-1.5 at **camosun.ca** for 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, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. (For these courses a final grade will be assigned to either the 3 rd course attempt or at the point of course completion.)
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.

7. 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 the College web site in the Policy Section.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED