



## 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:	Fisher 344A		
(d)	Phone:	250-370-3331	Alternative Phone:	
(e)	Email:	<a href="mailto:hamilta@camosun.bc.ca">hamilta@camosun.bc.ca</a>		
(f)	Website:	<a href="http://hamilton.disted.camosun.bc.ca/">http://hamilton.disted.camosun.bc.ca/</a>		

### 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. Describe the three major sediment types, their settings and how they provide environmental records, including clastic sediments, chemical sediments, and biological sediments.
2. Describe common sedimentary minerals and their roles as matrix and cements and analyse the significance of sedimentary structures, fossils and trace fossils.
3. Identify common sediments and the roles of weathering, erosion, transport, deposition in their genesis and relate particle size of sediments to the energetics of sedimentary transport.
4. Utilize the petrographic microscope for the identification of sedimentary minerals and textures.
5. Relate suites of sedimentary rocks to adjacent and sequential environments taking into account effects of physics, chemistry and biology.
6. Describe the stratigraphic and depositional effects of changing base level or sea level with reference to the stratigraphic principles, facies, time assignments and correlation tools of: biostratigraphy, magnetostratigraphy and lithostratigraphy.
7. Describe several types of sedimentary basins and their assemblages of sediments and compare and contrast geophysical and well-logging exploration techniques related to basin analysis.
8. Identify different tectonic settings using lithologies and sediment properties.
9. Compare sedimentary resources, their settings and uses including: aggregates, coal, sedimentary iron formations, sediment hosted metals deposits, groundwater and hydrocarbon reservoirs.

### 3. Required Materials

- (a) Texts: Miall, Andrew D., (2006) Sediments and Basins, 384 p., Custom Publication of University of Toronto through Pearson Ed., Required
- (b) Lab Manual Loaned for Duration of Course: Fichter, Lynn S. and Poche, David J. (2001) Ancient Environments and the Interpretation of Geologic History, 310 p. plus 4 foldouts, 3<sup>rd</sup> Edition, Prentice Hall.
- (c) Other: Hand lens, personal field equipment, sturdy shoes/boots, rain gear

### 4. 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: 9:30-10:20 M, T in F300, Th in F306

(b) Lab: 9:30-12:30 W in F300 also used for tests and field trips as scheduled

(c) Field Trips: 1-2 scheduled in lab periods, 1-2 scheduled on weekends as full day or overnight 1.5 day

## 5. Basis of Student Assessment (Weighting)

(This section should be directly linked to the Intended Learning Outcomes.)

- (a) Assignments: Weekly lab exercises and reports due at beginning of following lab period.
- (b) Quizzes: Intermittently on Monday or Thursday in lecture to test currency with readings.
- (c) Exams: (2) midterms (15% each) of 2 hour duration in lab periods and (1) 3 hour final (30%) as scheduled by registration
- (d) Term Paper (due at beginning of Week 12) and Power Point Presentation (scheduled in last 2 weeks of class) on an approved topic in sedimentary, environmental or resource geology (15%).
- (e) Attendance in labs and on field trips is required and together with reports constitutes 25 % of course mark.

## 6. Grading System

(No changes are to be made to this section unless the Approved Course Description has been forwarded through the Education Council of Camosun College for approval.)

### 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	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](http://camosun.ca) for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete:</i> 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	<i>In progress:</i> 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 <sup>rd</sup> course attempt or at the point of course completion.)
CW	<i>Compulsory Withdrawal:</i> 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

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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](http://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