CAMOSUN COLLEGE	***School of Arts & Science*** ***SOCIAL SCIENCES DEPARTMENT*** **GEOG 214-001/002** **Digital Geomatics** **Semester 2009F**

COURSE OUTLINE

The Approved Course Description is available on the web @ _____

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

1. Instructor Information

(a)	Instructor:	Tim Elkin		
(b)	Office Hours:	Mon 10.30-11.30am, 1.30-2.30pm; Tues 9.30-10.30am, 1.30-2.30pm; Wed 10.30-11.30am		
(c)	Location:	E238		
(d)	Phone:	370-3115	Alternative Phone:	
(e)	Email:	elkint@camosun.bc.ca		

2. Intended Learning Outcomes

(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO for approval.)

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

1. Demonstrate an understanding of the basic concepts in digital geomatics, including concepts in GIS, digital mapping and database systems, and digital remote sensing.
2. Demonstrate an ability to handle spatial data through the application of GIS software and the use of remote sensing data.

3. Required Materials

(a)	Texts	Ian Heywood, An Introduction to Geographical Information Systems. 2006. Prentice Hall. Canada Centre for Remote Sensing (CCRS) *Fundamentals of Remote Sensing*

4. Course Content and Schedule

Week of
Week 1Sept 8
Introduction to the course

Lab: Introduction to ArcGIS

Week 2 Sept 14
Geomatics, GIS and geographic inquiry
Heywood, Ch. 1

Lab: Geographic inquiry

Assignment: Mental mapping

Week 3 Sept 21
Spatial data
Heywood, Ch. 2

Lab: Working with spatial data

Week 4 Sept 28
Collecting spatial data
Heywood, Ch. 2

Assignment: Spatial Data

Lab: Collecting and mapping spatial data

Week 5 Oct 5
Attribute data and database management
Heywood, Ch. 4

Lab: Collecting and mapping attribute data

Assignment: Attribute data

Week 6 Oct 12
Introduction to remote sensing

Canada Centre for Remote Sensing, *Fundamentals of Remote Sensing*
http://www.ccrs.nrcan.gc.ca/ccrs/learn/tutorials/fundam/fundam_e.html
Ch. 1 Introduction; Ch. 2 Sensors

Lab 5: Working with photographic and satellite imagery

Assignment: Remotely sensed data

Week 7 Oct 19
Data input and editing
Heywood, Ch. 5

Assignment: Project databases

Lab 7: Digitizing

Week 8 Oct 26
EXAM

Project work

Week 9 Nov 2
Spatial data modeling: vector and raster data
Heywood, Ch. 3

Lab: Working with vector and raster data

Assignment: Spatial data modeling

Week 10 Nov 9
GIS analysis 1
Heywood, Ch. 6

Lab: Data Analysis 1

Assignment: Data analysis

Week 11 Nov 16
GIS analysis 2
Heywood, Ch. 6

Lab: Data Analysis 2

Week 12 Nov 23
Output: Maps and decision making
Heywood, Ch. 8

Lab: Output

Week 13 Nov 30
Review and project work

Week 14 Dec 7
Project work

5. Basis of Student Assessment (Weighting)

(a)	Assignments	30%
(b)	Project	20%
(c)	Exams	45%
(d)	Wiki	*5%*

6. Grading System

(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO 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** 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 3rd 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 on the College web site in the Policy Section.