

# School of Arts & Science SOCIAL SCIENCES DEPARTMENT

GEOG 214-001
Digital Geomatics
Semester/Year, 2010W

### **COURSE OUTLINE**

#### The Approved Course Description is available on the web @

 $\Omega$  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:	Catherine Griffiths	
(b)	Office Hours:	Tues and Fri 9:30 – 10:20	
(c)	Location:	Fisher 308B	
(d)	Phone:	370-3370	Alternative Phone:
(e)	Email:	Griffiths@camosun.bc.ca	
(f)	Website:	Griffiths.disted.camosun.bc.ca	

### 2. Intended Learning Outcomes

(<u>No</u> 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:

- 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: Geographic Information Systems and Science, second edition. Paul Longley, Michael Goodchild, David Maguire and David Rhind Wiley Press.
- (b) Other: Lab materials and additional information online.

#### 4. Course Content and Schedule

Lectures: There will be 2 hours of lecture per week. The lectures will include PowerPoint, Overheads and traditional lecture material. There will be an in class discussion each week to further expand the concepts.

Labs: There are 9 labs in this course. Each lab, except 2, is worth 4 %, lab 2 is worth 6% for a total of 38% of the final mark. All labs are held in the general computing lab –

Ewing 112. Attendance is mandatory for lab sessions. Contact with instructor prior to lab session is required for alternate arrangements otherwise a mark of zero will be assigned.

Project: There is one group project in this course due at the end of term. This will be worth 12% of the final mark.

Examinations: There are 2 exams during this course. There is one midterm during class time. It is worth 20% of your final mark. The final exam is cumulative and is worth 30% of your final mark.

Course Schedule:

# **Geography 214 Winter 2010 Schedule**

Date		Lecture - Tuesdays	Lab - Fridays	Readings
jan 5, 8	1		Introduction to labs - Virtual Campus Getting Started with GIS	Chapter 1
jan 12,15	2	Introduction to course	Lab 1: Tutorial - Quick Start	Chapter 2 and 7
jan 19, 22	3	What is GIS? History of GIS	Lab 2: Paper to Digital: SVI	Chapters 3-5
jan 26, 29	4	Spatial Data and Data Quality Projections and scale	Lab 3: GPS to GIS - Jasper?	Chapters 12 and 13
Feb 2 and 5	5	Map Output	Project topics and Lab 4: Census data online- estat and atlas of canada	Chapters 8 and 9
Feb 9 and 12	6	Spatial Data Modeling & Project Design	Lab 5: Airfield SSI and Acquire Project data (due Feb 23rd)	Chapters 10 and 11
Feb 16, 19	7	Midterm	No Class - reading break	
Feb 23 and 26	8	Database: Gathering and Input	Lab 6: Census Data linking data to maps	Chapters 14 and 15
Mar 2 and 5	9	Analysis and Query	Project work: data acquisition, topic by today and sign up for time	Chapter 16
Mar 16 and 19	10	Analysis and Modeling	Lab 8: Aerial Photos and GIS - airphoto to landuse layer	NRCAN RS101, Tutorial 1, 2
Mar 23 and 26	11	Introduction to Remote Sensing	Lab 9: Decision Making and Remote Images	NRCAN RS101, Tutorial 4
Mar 9 and 12	12	Satellite Imagery	Project work - last chance	Bits of Chapters 18 - 21
Mar 30 Apr 2	13	Ethics/Future of GIS	Easter Holiday	
Apr 6 and 9	14	Presentations	Review and catch-up	

### 5. Basis of Student Assessment (Weighting)

(Should be linked directly to learning outcomes.)

(a) Laboratory exercises: Total 38%

(b) Exams: Midterm = 20% Final = 30%

(c) Other (e.g., Attendance, Project, Group Work) Project = 12%

# 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	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
1	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 <sup>rd</sup> 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 <a href="mailto:camosun.ca">camosun.ca</a>.

#### 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.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED