

# School of Arts & Science SOCIAL SCIENCES DEPARTMENT GEOG 217

## Maps and GIS

**Quarter or Semester/Year** 

## **COURSE OUTLINE**

The course description is online @ http://camosun.ca/learn/calendar/current/web/geog.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:	Tim Elkin			
(b)	Office Hours:	Tues 1.30-2.20; Wed	Tues 1.30-2.20; Wed 10.30-11.20; Thurs 1.30-2.20; Fri 10.30-11.20		
(c)	Location:	E238			
(d)	Phone:	370-3115	Alternative Phone:		
(e)	Email:	elkint@camosun.ca			
(f)	Website:				

### 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 basic concepts in mapping, including geo-referencing, scale, projection and map interpretation.
- 2. Differentiate between different types of maps.
- 3. Analyze GIS data and metadata to interpret digital maps.
- 4. Use GIS software to solve geographic problems and produce digital maps.

### 3. Required Materials

- (a) Ian Heywood, <u>An Introduction to Geographical Information Systems</u>. 2011 (customized 4<sup>th</sup> edition). Prentice Hall.
- (b) Course manual

### 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.)
Week of

# Week 1 Sept 3

Introduction to the course

### Week 2 Sept 10

Lab: Introduction to ArcGIS

### Theme: Geographic Inquiry

Asking geographic questions/defining concepts

Class: Maps, GIS and geographic inquiry

Heywood, Ch. 1

Assignment: Mental mapping

#### Week 3 Sept 17

Lab: Geographic inquiry; community mapping

Class: Understanding spatial data concepts: projection, datum, coordinates, scale

Heywood, Ch. 2

Assignment: Spatial data concepts 1

Week 4 Sept 24

Lab: Maps - working with spatial concepts

Class: Understanding spatial data concepts: direction, elevation, relief

Heywood, Ch. 2

Video: Arno Peters: radical map, remarkable man

Assignment: Spatial data concepts 2

Week 5 Oct 1

Lab: Map interpretation

Class: Spatial data models - vector and raster data

Heywood, Ch. 3

Assignment: Spatial data models

Week 6 Oct 8

Lab: Working with vector and raster data models

Theme: Geographic Inquiry

Acquiring geographic resources/exploring geographic data

Class: Working with spatial and attribute data; working with GPS

Heywood, Ch. 4, 5

Assignment: Collecting spatial and attribute data

Week 7 Oct 15

Lab: Exploring data with maps - part 1

Class: TEST 1

Week 8 Oct 22

Lab: Exploring data with maps - part 2

Class/Assignment: Map making

Week 9 Oct 29

Lab: Exploring data with maps - part 3

Theme: Geographic Inquiry
Analyzing geographic information

Class: GIS analysis Heywood, Ch. 6

Assignment: Data analysis

Class: Week 10 Nov 5

Lab: Data Analysis 1: Query, buffer, surface analysis, interpolation

Class: project

Week 11 Nov 12

Lab: Data Analysis 2: Overlay

Theme: Geographic Inquiry
Act on geographic knowledge

Class: Maps and decision making

Heywood, Ch. 8

Week 12 Nov 19

Lab: Quantitative analysis: Choropleth maps

Project work

Week 13 Nov 26

Project work

Class: TEST 2

## Week 14 Dec 3

Project work

## 5. Basis of Student Assessment (Weighting)

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

Tests 35% Lab/class exercises 50% Project 15%

#### 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	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 <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 the College web site in the Policy Section.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED