

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: | Mon 2.30-3.20; Tues 11.30-12.20; Wed 2.30-3.20; Thurs 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

(Ian Heywood, An Introduction to Geographical Information Systems. 2011 (customized 4th edition). Prentice Hall.

A course manual is for sale in the bookstore.

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 1 Sept 1

Introduction to the course

Week 2 Sept 8

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 15

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 22

Lab: Maps - working with spatial concepts

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

Heywood, Ch. 2

Assignment: Spatial data concepts 2

Week 5 Sept 29

Lab: Working with topographic maps

Class: Spatial data models - vector and raster data

Heywood, Ch. 3

Assignment: Spatial data models

Week 6 Oct 6

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 13

Lab: Exploring data with maps - part 1

Class: Map making

Week 8 Oct 20

Lab: Exploring data with maps - part 2

Class: TEST 1

Week 9 Oct 27

Lab: Exploring data with maps - part 3

Theme: Geographic Inquiry
Analyzing geographic information

Class: GIS analysis Heywood, Ch. 6

Assignment: Data analysis

Week 10 Nov 3

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

Class: Projects, getting started

Week 11 Nov 10

REMEMBRANCE DAY

Theme: Geographic Inquiry: Act on geographic knowledge

Class: Maps and decision making

Heywood, Ch. 8

Assignment: Map critique

Week 12 Nov 17

Lab: Data Analysis 2: Overlay, Quantitative spatial analysis

Class: TEST 2

Week 13 Nov 24 Lab/class: Projects

Week 14 Dec 1 Lab/class: Projects

5. Basis of Student Assessment (Weighting)

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

Tests 30% Lab/class exercises 50% Project 20%

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 |
|---|---|
| ı | 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.) |
| Compulsory Withdrawal: A temporary grade assigned by a Dean whe after documenting the prescriptive strategies applied and consulting with deems that a student is unsafe to self or others and must be removed 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