

	<p>School of Arts &amp; Science  <b>ENVIRONMENTAL TECHNOLOGY</b>  <b>ENVR 220</b>  <b>MAP &amp; AIR PHOTO INTERPRETATION</b>  <b>Winter/2014</b></p>
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## COURSE OUTLINE

The course description is online @ <http://camosun.ca/learn/calendar/current/web/anth.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. Vic Levson
(b)	Office Hours:	12:30-1:30 PM Monday (at other times, by appointment)
(c)	Location:	Fisher 344D
(d)	Phone:	250-370-3506
(e)	Email:	vlevson@telus.net
(f)	Website:	D2L

### 2. Intended Learning Outcomes

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

1. Discuss the theories and methods of geo-location, the historical context of mapping, and the application of digital technologies in present-day cartography and aerial photography.
2. Apply the principles behind map navigation, ground surveying, and air photo interpretation in practical simulations.
3. Handle a wide variety of navigational and survey tools with enough proficiency to produce valuable data results

### 3. Required Materials

**TEXTBOOK:** Aerial Photography and Image Interpretation, by David Paine and James Kiser, 3<sup>rd</sup> Edition, 2012. John Wiley & Sons Inc.

\*The purchase of this textbook is **REQUIRED** for this course. Readings from the textbook will be assigned in class throughout the term.

**Recommended e-Book:** Map Use and Analysis by John Campbell, McGraw Hill Publishing - 4<sup>th</sup> Edition, 2001. To reduce the cost, the relevant chapters from this text have been selected and McGraw-Hill has prepared a digital abbreviated version of the textbook for your use. Go to [www.mcgrawhillcreate.com](http://www.mcgrawhillcreate.com) and scroll to the bottom of the screen. From there, click on McGraw Hill Bookstore and change the country to Canada. Find Camosun Lansdowne on the list and then find the book.

### 4. Course Content and Schedule

#### COURSE DESCRIPTION:

This course is designed to introduce students to the practical skills of map use and aerial photography interpretation. The theory of map construction and the conventions of map design will be discussed in class; the principles of map symbol interpretation will be introduced and practiced in a laboratory setting. Vertical aerial photographs will be viewed stereoscopically and students will learn basic feature identification using these visual images. The mechanics and constraints of this and other remote sensing data collection techniques will be explored and the conventions of presentation will also be discussed.

Lectures: There will be two hours of lecture a week, on Mondays from 10:30-12:20. The blackboard will be heavily utilized and overheads and images will augment the traditional lecture style. Practical examples will be provided during the lectures to provide active learning opportunities.

Labs: There are thirteen labs in the course. Each lab contains information and exercises to familiarize students with the tools and techniques of map and air photo interpretation. A variety of different map types will be used and a full range of natural and social features will be profiled in the laboratory assignments. Some labs will be outdoors and timing is weather dependent so students should always be prepared to go outdoors during the lab period (warm clothing, rain gear, adequate footwear etc.)

## TENTATIVE COURSE SCHEDULE

**\*schedule is subject to change\***

<u>Week of:</u>	<u>Monday Topic</u>	<u>Lab Exercise</u>
Jan 6	Course Introduction	Lab 1 – Mental maps
Jan 13	Map Types and Elements	Lab 2 – Map elements and types
Jan 20	Mapping Conventions 1, Map Projections	Lab 3 – Topographic maps: scale, distance, latitude & longitude
Jan 27	Mapping Conventions 2	Lab 4 – UTM and locational systems
Feb 3	Traverse mapping and surveying	Lab 5 - Compass and pace traverse mapping – horizontal
Feb 10	Family Day – no class, no labs	
Feb 17	Measurements from Maps	Lab 6 – Survey traverse – vertical
Feb 24	Midterm Exam	Lab 7 – Aerial and directional measurements
Mar 3	Global Positioning Systems	Lab 8 – GPS
Mar 10	Air Photo Introduction	Lab 9 – Introduction to air photos
Mar 17	Air Photo Interpretation	Lab 10 - Air photo Interpretation
Mar 24	Photogrammetry 1	Lab 11 – Photogrammetry 1
Mar 31	Photogrammetry 2	Lab 12 – Photogrammetry 2
Apr 1	Satellite Image interpretation	Lab 13 – Interpreting satellite and other remotely sensed images
Apr 7	Lab Quiz	

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

- (a) **Lab Assignments (26%)**. There are thirteen labs in the course worth 2% each. Attendance during lab periods is mandatory and labs are due at the end of the lab unless otherwise specified. In the case of illness, the instructor must be contacted prior to the class time and an alternate arrangement must be made; otherwise, a mark of zero will be assigned. A lab quiz will be held at the end of the course to evaluate your comprehension of the lab material (see next item).
- (b) **Lab Quiz (14%)** – the Lab quiz will be held in class on **Monday April 7<sup>th</sup>** and will be worth 14%.
- (c) **Midterm Exams (25%)** – the midterm exam will be held in class on **Monday February 24<sup>th</sup>** and will be worth 25% of the course total. The exam will offer a selection of short-answer and skill-based questions.
- (d) **Final Exam (35%)** – The final exam will cover all of the course material and will be worth **35%** of the course total. The final will follow the same format as the midterm.

## 6. Grading System

### 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. <i>(For these courses a final grade will be assigned to either the 3<sup>d</sup> course attempt or at the point of course completion.)</i>
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

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.