



Course Outline

ENVIRONMENTAL
TECHNOLOGY

ENVT 263
Maps, Aerial Photos, and Remote Sensing
Winter, 2013

3 CREDITS
2 HOURS LECTURE, 3 HOURS LAB PER WEEK

INSTRUCTOR: David Smith

INSTRUCTOR: David Smith
PHONE NUMBER: (780) 791-4997
E-MAIL: david.smith@keyano.ca
OFFICE NUMBER: S209B

OFFICE HOURS:

Monday – Friday 1:00 – 1:50 PM

HOURS OF INSTRUCTION:

Wednesday	9:00 – 11:50 AM	Room S114
Thursday	8:00 – 9:50 AM	Room S212

COURSE DESCRIPTION:

The course will provide students with an introduction to remote sensing and airphoto interpretation. Emphasis will be placed on practical applications, but some understanding of basic principles is also essential. Lab work will cover a broad spectrum of interest areas, but always linked where possible to environmental applications.

PRE-REQUISITE(S):

ENVT 152 and ENVT 156

COURSE OUTCOMES:

The student will be able to:

- Recognize and give examples of the basic elements of electromagnetic radiation, and the factors affecting them.
- Summarize the methods of image acquisition.
- Work directly with aerial photos from the Fort McMurray area, and measure the relationship with topographic maps.
- Interpret patterns from different remote sensing media, and use for different applications, such as archaeology, agriculture, geology, engineering, and urban/industrial.
- Learn and use the new features of Google Earth and other non-traditional remote sensing technologies.

REQUIRED RESOURCES:

Fundamentals of Remote Sensing and Airphoto Interpretation; Avery, T.E., and Berlin, G.L., Prentice Hall, 1992 (5th edition).

TOPICS TO BE COVERED:**Please Note:**

This course outline may be modified to facilitate unforeseen time constraints. Date and time allotted to each topic is subject to change.

Week 01	Introduction, Course Overview
Week 02	Basics, Air Photo Interpretation
Week 03	Photogrammetry
Week 04	Archeology, Maps
Week 05	Geology and Soils
Week 06	Urban and Industrial
Week 07	Photo Organization and Photo Scale
Week 08	Elements of Photo Patterns and Drainage
Week 09	Reading Week
Week 10	Google Earth Introduction
Week 11	Google Earth & Satellite Imagery – Topical Special Event, e.g., Tsunami
Week 12	Google Earth – Geological; Remote Sensing - Landsat
Week 13	Google Earth – Cities
Week 14	Remote Sensing
Week 15	Summary & Review
Week 16/17	Final Exam

MOODLE

Go to <http://ilearn.keyano.ca>

This course is supported through Moodle. Assignments, readings and handouts will be posted on Moodle. Login information will be provided by your instructor. For further instructions please see the Moodle handout.

EVALUATION:

Assignment	Percentage	Due Date
Assignments	30%	Each week
Midterm No. 1	15%	January 24, 2013
Midterm No. 2	20%	February 21, 2013
Final Examination	35%	See exam schedule

GRADING SYSTEM:

Letter Grade	Description	Grade Points
A+		4
A	Excellent	4
A-		3.7
B+		3.3
B	Good	3
B-		2.7
C+		2.3
C	Satisfactory	2
C-		1.7
D+		1.3
D	Minimal Pass	1
F	Failure	0

A minimum grade of ‘C-’ is required for progression.

Cell phones and other electronic devices should be turned off during all lecture and workshop sessions, unless otherwise exempted by the instructor.

Assignments and reports are due one week following the event, unless directed otherwise by the instructor. Electronic copies should be submitted via the Moodle Drop Boxes.

Students who do not complete all the required work should not expect to pass the course.

Students should consult:

http://www.keyano.ca/current_students/examinations/index.htm

IMPORTANT DATES:

January 18, 2013	Courses dropped after this date will be designated “W”. (A withdrawal (W) is not reflected in your GPA)
January 29, 2013	Midterm Exam
February 19, 2013	Midterm Exam
March 8, 2013	Courses dropped after this date will be designated “WF”. (A withdrawal failure (WF) counts as a 0 in your GPA)
April 19, 2013	Last day of classes
April 22-30, 2013	Final Exam

COLLEGE POLICIES

Equality, Equity and Respect

The Keyano College is committed to providing an environment of equality, equity and respect for all people within the College community. All members of this community are considered partners in developing teaching and learning contexts that are welcoming to all. Faculty, staff, and students are encouraged to use inclusive language to create a classroom atmosphere in which students' experiences and views are treated with equal respect and valued in relation to their gender, ethnic and cultural background, and sexual orientation.

Students should consult:

http://www.keyano.ca/Committees/IRA/Individual_Rights_Policy.asp

Plagiarism and Cheating

Every student expects to be treated and evaluated fairly in a course. Plagiarism and cheating robs everyone of this right.

No student may submit words, ideas or data of another student or person as his or her own in any writing, project, assignment, quiz, electronic presentation, exam etc. Any work used that is not the student's own must be clearly cited as belonging to someone else. There are penalties for using other's work and not citing it. The Student's Rights & Responsibilities document clearly outlines these penalties and the appeal process.

- No learner can obtain information from another student during an exam.
- No learner can bring unauthorized information (paper or electronic) into an exam or quiz.
- No student can submit work done in another course for grading in this course without the written prior approval of the course instructor.
- No student can submit copyright protected or commercially produced materials as part or all of an assignment without proper citation & permission.

Student Rights & Responsibilities

Students should consult the Keyano College Credit Calendar or online at:

<http://www.keyano.ca/Media/Collections/Calendars/Keyano.Calendar1112-10-full.pdf>

Disability Support Services: Learner Assistance Program

If you have a documented disability or you think that you would benefit from some assistance from a Disabilities Counsellor, please call or visit the Disability Supports Office 780-792-5608 to book an appointment (across from the library). Services and accommodations are intended to assist you in your program of study, while maintaining the academic standards of Keyano College. We can be of assistance to you in disclosing your disability to your instructor, providing accommodations, and supporting your overall success at Keyano College.

Specialized Supports and Duty to Accommodate

Specialized Support and Duty to Accommodate are aligned with the office of Disability Support Services: Learner Assistance Program (LAP) guided by federal and provincial human rights legislation, and defined by a number of Keyano College policies. Keyano College is obligated by legislation to provide disability-related accommodations to students with identified disabilities to the point of undue hardship.



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David Smith, Instructor

Date

Reviewed and approved by:

Louis Dingley, Chairperson

Date

Guy Harmer, Dean

Date