



Course Outline

ENVIRONMENTAL TECHNOLOGY

ENVT253
Introduction to Applied Statistics I
Winter 2013

3 CREDITS
5 HOURS PER WEEK

INSTRUCTOR: Danna Schock

INSTRUCTOR: Danna Schock
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E-MAIL: danna.schock@keyano.ca
OFFICE NUMBER: S209c

OFFICE HOURS:

Monday 10:00 – 10:50 AM
Thursday noon – 1:50 PM
Friday 1:00 – 2:50 PM

Please email me to arrange an appointment if these times won't work for you.

HOURS OF INSTRUCTION:Lecture

Tuesday	1:00 – 1:50 PM	Room 233
Thursday	10:00 – 11:50 AM	Room 228

Lab

Friday	11:00 AM – 12:50 PM	Room S205
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COURSE DESCRIPTION:

An introduction to descriptive statistics (including histograms, stem-and-leaf plots, and box plots), elementary probability, the binomial distribution, the normal distribution, sampling distributions and the central limit theory. An introduction to inferential statistics including estimation of population parameters and confidence intervals for means, hypothesis testing including both one and two sample tests, paired comparisons, one-way analysis of variance, chi-square test, correlation and linear regression analysis.

PRE-REQUISITE(S):

ENVT 153

COURSE OUTCOMES:

Students that successfully complete this course will be able to:

1. Apply descriptive and inferential statistics to data sets from a variety of disciplines.
2. Use statistical software and interpret the output.

REQUIRED RESOURCES:

Agresti, A. and Franklin, C. (2012) *The art and science of learning from data*, 3rd ed. New York: Freeman.

Student version of SPSS: See access code with purchase of textbook.

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.

Syllabus**Part I: Gathering and Exploring Data**

Statistics: The art and science of learning from data	Chapter 1
Exploring Data with Graphs and numerical summaries	Chapter 2
Association: Contingency, Correlation, and Regression	Chapter 3
Gathering Data	Chapter 4

Part II: Probability, Probability Distributions, and Sampling Distributions

Probability in our daily lives	Chapter 5
Probability distributions	Chapter 6
Sampling distributions	Chapter 7

Part III: Inferential Statistics

Confidence Intervals	Chapter 8
Tests of Significance	Chapter 9
Comparing two groups	Chapter 10

Part IV: Analyzing Associations and Extended Statistical Methods

Analyzing associations between categorical variables	Chapter 11
Analyzing associations between quantitative variables:	Chapter 12
Comparing Groups: Analysis of Variance	Chapter 14
Review	

MOODLE and KEYANO EMAIL:

Moodle is at <http://ilearn.keyano.ca>

This course is supported through Moodle. Assignments, readings, handouts, etc will be posted on Moodle. It is expected that you will be regularly visiting the our course page and that you are able to send and received messages through Moodle. You must ensure your account is operational and tha t you are familiar with how to navigate Moodle by the end of the **FIRST WEEK OF CLASSES**.

Similarly, you must ensure your **KEYANO** email is operational and you must check it regularly – twice a day is recommended. I will not use your personal email addresses (gmail, yahoo, etc) for a plethora of liability, security and confidentiality reasons.

CELL PHONES and other electronic devices:

Except by express permission of the instructor,

- a) cell phones must be turned off and unavailable for use during class
- b) cell phones and other electronic devices must be turned off and stored in a designated area during all exams

EVALUATION:

Evaluation	Percent	Due Date
Homework Assignments	10%	TBA
Lab Assignments	10%	TBA
Midterm Exam	30%	Thurs 21 Feb 2013
Lab Exam	10%	Week of 8 April 2013
Final Examination	40%	TBA

GRADING SYSTEM:

Letter Grade	Description	Grade Points
A+		4.0
A	Excellent	4.0
A-		3.7
B+		3.3
B	Good	3.0
B-		2.7
C+		2.3
C	Satisfactory	2.0
C-		1.7
D+		1.3
D	Minimal Pass	1.0
F	Failure	0

Students intending to transfer to other institutions require a ‘C-’ as a minimum grade.

Transfer information on each course is available at the [Alberta Council on Admission and Transfers](#).

If all assignments are not completed the student will receive a grade of F.

Students should consult:

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

GOOD ATTENDANCE AND GOOD GRADES ARE TIGHTLY CORRELATED

Regular attendance is expected and that fact will be reflected in the calibre and nature of assignments and exams. PowerPoint presentations should be thought of as study guides; you must take additional notes in class to do well.

Attendance will be taken in accord with department policy.

This will be accomplished by sign-in sheets distributed at the beginning of class/lab. Each student must enter their own information on the sign-in sheet. Failure to record your information on the sign-in sheets will be recorded as an absence.

ASSIGNMENTS AND EXAMS

It is YOUR responsibility to make sure you know when assignments are due, and when exams take place. Major exam dates are listed in this course outline. Assignments will be announced in class/lab.

You will have at least 1 week to complete assignments. Assignments are automatically late if not handed in when asked for at the start of class. Late assignments will be penalized 20% per day late and will not be accepted if more than 5 days late.

Lecture and Lab final exams are cumulative.

Travel plans are NOT valid excuses for missing a final exam. Do not make plans to travel during the final lecture exam period (16 – 25 April 2012). Exams missed under these circumstances will not be accommodated and therefore completion of the course is not possible.

IMPORTANT DATES:

18 Jan 2013	Courses dropped after this date will be designated “W”. (A withdrawal (W) is not reflected in your GPA)
21 Feb 2013	Mid-term examination (tentative)
8 March 2013	Courses dropped after this date will be designated “WF”. (A withdrawal failure (WF) counts as a 0 in your GPA)
19 April 2013	Last day of classes
22 – 30 April 2013	Final Exams

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>

Specialized Supports and Duty to Accommodate

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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Date

Reviewed and approved by:

Louis Dingley, Chairperson

Date

Guy Harmer, Dean

Date