STATISTICS 1510 B3
Introduction to Applied Statistics
Winter 2008

Grande Prairie Regional College

Lecture: ST1510 B3   J 226   W F   13:00 – 14:20

Lab: ST1510 BL1   A313   Tues   14:30 – 16:20
                ST1510 BL2   A313   Thur   14:30 – 16:20

INSTRUCTOR: Thomas Kaip, J212, ph. 539-2963

TEXT: *The Basic Practice of Statistics*, by D.S. Moore, 4rd Edition.

PREREQUISITE: Pure Math 30

TRANSFER: UA, UC, UL, AU, CU, KUC, AUC.

ASSESSMENT: Your final grade will be determined in the following manner:

Assignments	10%	
Lab Reports	15%	
Mid Term	20%	Feb11, 09
Lab Exam	15%	
Final Exam	40%	As per the Registrar's office

EXAMS: Exams will be closed book. A hand calculator will be necessary.
                The formula sheet and tables as given in the textbook will be
                coppied and be given to you for the exams.

MISSED EXAMS: Students who miss the mid-term exam for a valid reason, such as
                illness, will have the weight transferred to the final exam.

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OUTLINE

Statistics 1510 is an introductory statistics course focusing on statistical reasoning and data analyses. Mathematical theory is kept to a minimum. Students have access to a computer lab and so are able to work with a variety of data sets. You will be taught in the labs how to use the statistical part of the spreadsheet EXCEL and you will learn how to make proper lab reports.

The following course outline is based on the text *The Basic Practice of Statistics*,4th ED by D.S. Moore

PART I	Exploring Data	Chapters 1-5
PART II	From Exploration to Inference	Chapters 8-16
PART III	Inference about variables	Chapters 18-21
PART IV	Inference about relationships	Chapters 20- 22
NOTE:	Some *['ed] sections may be omitted.	

ASSIGNMENTS

There are 5 homework assignments for this course. The assignments will be given out during class on Wednesday and are due at the beginning of class one week later.

Assignments must have a title page, proper format, use one side of page only and all pages stapled together.

NO LATE ASSIGNMENTS WILL BE ACCEPTED.

LABORATORY PROJECTS

The Computer Labs in Statistics 1510 are designed so that you can gain experience working with realistic data sets, familiarize yourself with the use of a computer for statistical analysis, and to help you understand the course material.
This term we are using a spreadsheet software package in the labs, Microsoft EXCEL.

Lab Reports are to be submitted at the completion of the lab.
Lab Reports must be in printed form. Remember to keep a back-up in some saved format.

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LABORATORY PROJECTS

Lab Topics:

There are 11 scheduled lab periods this term. Formal Lab Reports are to be submitted for grading for Labs 2 through 9.

Date:

Date		Lab
Jan.	09, 11	Lab 1 Introduction to Excel
Jan.	16, 18	Lab 2 Formatting Output and Frequency Distributions
Jan.	23, 25	Lab 3 Data Descriptions
Jan.	30, Feb. 01	Lab 4 Linear Regression and Correlation
Feb.	06, 08	Lab 5 Sampling Distributions
Feb.	27, Mar. 01	Lab 6 Confidence Intervals
Mar.	06, 08	Lab 7 Introduction to Inference
Mar.	13, 15	Lab 8 Two-Sample T-Tests
Mar.	20, 22	Lab 9 Probability Distributions
Mar.	27, 29	Lab 10 Linear Regression
Apr.	03, 05	Lab 11 Lab Exam

Due Dates and Times

Lab Reports are to be submitted at the end of the lab period.

NO LATE LABS WILL BE ACCEPTED.

FORMAT OF LABS:

1. Lab reports will include complete answers to the questions.
2. Questions are to appear in order. It is your responsibility to format your pages so as to present a properly written report. Label all answers as you would if you were hand-writing the submission. (Number all questions and label your answers so that they can be easily identified.)
3. Each page will have a heading which will include your name, ID number, date, course and section, and lab number and title. This header must be in BOLD and LARGER FONT, as per the sample of Lab #2.
4. All pages must be stapled together (paper clips, folded corners, etc., are not acceptable). All reports should be two or three pages long.
5. A sample lab report, for Lab #2, will be available in the second lab session.

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LECTURE SCHEDULE (approximate)

Chapter	Lecture Time	Topic
	1.5 hrs	Introduction
1	1.5	Displaying Distributions with Graphs.
2	1.5	Displaying Distributions with Numbers.
3	1.5	Normal Distributions.
4	1.5	Correlation.
5	1.5	Regression.
6	1.5	Two-Way Tables.
7	1.5	Producing Data: Sampling.
8	1.5	Producing Data: Experiments.
9.	1.5	Introducing Probability.
10	1.5	Sampling Distributions.
11	1.5	Probability Rules.
12.	1.5	Binomial Distributions.
13.	1.5	Introduction to Inference.
14.	1.5	Confidence Intervals.
15.	1.5	Tests of Significance.
16	1.5	Inference about a Population mean.
17	1.5	Comparing Two Populations Means.
21	3	Inference for Regression.
18	1.5	Inference about a Population Proportion.
19	1.5	Comparing two Populations Proportions.
20	2	Inference for 2-Way Tables. Chi-Squared Tests
22.	1.5	Analysis of Variance.
Total	35	