STATISTICS 1510 A2/B2

Introduction to Applied Statistics
Fall 2002

Grande Prairie Regional College

ROOM:	Lecture:	ST1510 A2	J 228	T R	8:30 - 9:50
		ST1510 B2	J 226	T R	8:30 - 9:50
	Lab:	ST1510 AL1	A307	M	14:30 - 16:20
		ST1510 AL2	A307	W	14:30 - 16:20
		ST1510 BL1	A312	M	14:30 - 16:20
		ST1510 BL2	A312	W	14:30 - 16:20

INSTRUCTORS: Dallas Sawtell, C204, ph. 2989
Thomas Kaip, J212, ph. 2963

TEXT: *The Basic Practice of Statistics*, by D.S. Moore, 2nd Edition.
Excel Manual for Moore's The Basic Practic of Statistics, by Fred M. Hoppe

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

Assignments	10%	
Lab Reports	20%	
Midterm Exam	20%	Tuesday October 22
Lab Exam	15%	Dec 2 – Dec 6
Final Exam	35%	TBA

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: There is no make-up exam for Midterm .
Students who miss the Midterm for a valid reason, such as illness, will have the weight transferred to the final.

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*, by D.S. Moore

PART I	Understanding Data	Chapters 1-3
PART II	Understanding Inference	Chapters 4-8
PART III	Topics in Inference	Chapters 9 - 11
NOTE:	Sections 4.4, 6.4, 7.3 & 10.2 and all of Chapter 12 are omitted.	

Chapter	Approximate Lecture Time	Summary
	1.5 hrs	Introduction
1	4.5	Examining Distributions: displaying distributions with graphs, describing distributions with numbers, the normal distribution.
2	4.5	Examining Relationships: scatterplots, correlation, least-squares regression, caution about regression and correlation, relations in categorical data.
3	3	Producing data: designing samples, designing experiments.
4	3	Probability and Sampling Distributions: randomness, probability models, sampling distributions.
5	3	Probability Theory: general probability rules, the binomial distribution, conditional probability.
6	3	Introduction to Inference: Estimating with confidence, tests of significance, making sense of statistical significance.
7	3	Inference for Distributions: Inference for the mean of a polulation, comparing two means.
8	3	Inference for Proportion: inference for a population proportion, comparing two proportions.
11	3	Inference for Regression: inference about the model, inference about prediction, checking assumptions.
9	3	Inference for Two-Way Tables: two-way tables, the Chi-Square test.
10	1.5	Analysis of variance: the analysis of variance F-test.
Total	36	

There are 11 homework assignments for this course. The assignments will given on Tuesday in class. due by the following Tuesday at 08:30. Assignments are encouraged to be done using Excel and most of the data sets are contained on the CD in the back of your text.

NO LATE ASSIGNMENTS WILL BE ACCEPTED.

Solutions to these assignments will be posted on the second floor, J-wing on the Thursdays.

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LABORATORY PROJECTS
Fall 2002

Lab Topics:

There are 10 scheduled lab periods this term. Formal Lab Reports are to be submitted for grading for Labs 2 through 9.

Week ending:

Date	Lab	Title
Sept. 13	Lab 1	Introduction to Excel and Excel Add-Ins
Sept. 20	Lab 2	Formatting Output and Frequency Distributions
Sept. 27	Lab 3	Data Descriptions
Oct. 4	Lab 4	Correlation and Least-Squares Regression
Oct. 11	Lab 5	Time Series and Sampling Distributions
Nov. 1	Lab 6	Sampling Distributions
Nov. 8	Lab 7	Confidence Intervals
Nov. 22	Lab 8	Probabilities and Test of Significance
Nov. 29	Lab 9	Linear Regression
Dec. 6	Lab 10	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.