Math 109 ELEMENTARY STATISTICS
Section 093 (online)
SPRING 2014

Instructor: Dr. Chitra Gunawardena E-mail: gunawac@uwosh.edu

Catalog Description:

Descriptive statistics, elementary probability theory, sampling distributions, basic problems of statistical inference including estimation and confidence intervals, test of hypothesis and regression.

Prerequisite: 67-103 with a grade of C or better or placement

Learning Objectives: Upon successful completion of this course, the student will be able to

- use analytical skills to research, interpret, and evaluate statistical data.
- perform basic calculations involving probability and statistics.
- use appropriate language specific to statistics.
- employ and interpret statistical graphs
- use logical and analytical thought processes to solve complex problems involving interpretation, evaluation, analysis and inference
- demonstrate the ability to solve real life applications of probability and statistics

Textbook, MyStatLab and Calculator:

- *Elementary Statistics using TI-83/84 Plus Calculator* third edition, by Mario F. Triola + *MyStatLab* Access Card (if you have used e-books then you don't have to buy the textbook)
- *MyStatLab* (required): *MyStatLab* includes the textbook as an e-book. If you purchase a used textbook, you may not get the access code. If you don't have access code, you can purchase it online from http://pearsonmylabandmastering.com/. To purchase online you will need the course ID gunawardena35716
- TI-83 or TI-84 Plus calculator is required.

MyStatLab:

You will be doing homework problems, quizzes and exams on *MyStatLab*, which is an interactive website. *MyStatLab* provides step-by-step help to solve problems. *MyStatLab* provides resources to aid the student learning with videos, multiple examples, and tutorial services.

Homework and Quizzes:

Each week you will get a new homework assignment. The homework problems can be worked on until you get them correct with no time limit. There will be a quiz at the end of each chapter. You will have 90 minutes to complete the quiz and can be taken only once. Please pay attention to the due dates for homework assignments and quizzes.

Course Expectations:

This course will be completely on-line via D2L and *MyStatLab*. Students will be expected to log-in to the class in D2L at least once a week. Except in cases of emergency, or unless prior arrangements are made with the instructor, homework, quizzes and exams are due as indicated on the schedule. With prior instructor consent, or in cases of emergency, late assignments/exams or make-ups may be permitted. Please contact instructor if you have questions or problems.

Exams:

There will be 2 proctored exams given through *MyStatLab*. Proctored exams are administered by approved test proctors or testing centers. You are responsible for identifying a test proctor, and you must do this at the start of the class. Use the proctor approval form provided in the content section of D2L.

If you decide to take the exams at the UW Oshkosh Testing Center http://www.uwosh.edu/testing/ then in the section to be completed by PROCTOR write UWO Testing Center (no need for Proctor's signature).

You will submit the completed form to your instructor, who will then provide the proctor with the passwords for the exams.

You can send the completed proctor form by regular mail to: Chitra Gunawardena, Department of Mathematics, University of Wisconsin Oshkosh, Oshkosh, WI 54901 or fax it to: 920-424-1812.

There will be no make-up exams given except under special circumstances and prior notice. You will have two hours for each exam. Exams need to be completed by 11:59 pm on the last scheduled day for the exam.

Exam Schedule:

Exam 1	Chapters 1 – 5	March 17 – 24, 2014
Exam 2	Chapters 6 – 10	May 12 – 19, 2014

Grading Percentage:

Homework	20%
Quiz	20%
Exam 1	30%
Exam 2	30%

Grading Scale:

PERCENTAGE	GRADE	PERCENTAGE	GRADE
90 – 100	A	72 – 74	C
87 – 89	A-	69 – 71	C-
84 – 86	B+	66 – 68	D+
81 – 83	B	63 – 65	D
78 – 80	B-	60 – 62	D-
75 – 77	C+	0 – 59	F

Course Content:

Chapter 1: Introduction to Statistics

1-1: Review and Preview
1-2: Statistical Thinking
1-3: Types of Data
1-4: Critical Thinking
1-5: Collecting Sample Data
1-6: Introduction to the TI-83/84 Plus Calculator

Chapter 2: Summarizing and Graphing Data

2-1: Review and Preview
2-2: Frequency Distributions
2-3: Histograms
2-4: Statistical Graphics
2-5: Critical thinking: Bad Graphs

Chapter 3: Statistics for Describing, Exploring, and Comparing Data

3-1: Review and Preview
3-2: Measures of Center
3-3: Measures of Variation
3-4: Measures of Relative Standing and Boxplots

Chapter 4: Probability

4-1: Review and Preview
4-2: Basic Concepts of Probability
4-3: Addition Rule

Chapter 5: Discrete Probability Distributions

5-1: Review and Preview
5-2: Random Variables
5-3: Binomial Probability Distributions

Chapter 6: Normal Probability Distributions

6-1: Review and Preview
6-2: The Standard Normal Distribution
6-3: Applications of Normal Distributions
6-4: Sampling Distributions and Estimators
6-5: The Central Limit Theorem

Chapter 7: Estimates and Sample Sizes

7-1: Review and Preview
7-2: Estimating a Population Proportion
7-3: Estimating a Population Mean: σ known
7-4: Estimating a Population Mean: σ Not known

Chapter 8: Hypothesis Testing

8-1: Review and Preview
8-2: Basics of Hypothesis Testing
8-3: Testing a Claim about a Proportion
8-4: Testing a Claim about a Mean: σ known
8-5: Testing a Claim about a Mean: σ Not known

Chapter 9: Inferences from Two Samples

9-1: Review and Preview
9-2: Inferences about Two Proportions
9-3: Inferences about Two Means: Independent samples

Chapter 10: Correlation and Regression

10-1: Review and Preview
10-2: Correlation
10-3: Regression

Academic Integrity Policy:

Integrity is one of the Core Values of UW Oshkosh. All students share with the faculty the responsibility for academic honesty and integrity. The University expects its students to do their own academic work. In addition, it expects active participation and equitable contributions of students involved in group assignments. The following acts of academic dishonesty are not acceptable:

- Cheating: using or attempting to use unauthorized materials, information, or study aids in any academic exercise (e.g. an exam).
- Facilitating Academic Dishonesty: helping or attempting to help another to commit academic dishonesty (e.g. allowing another to copy from your test or use your work).
- Plagiarism: representing the words or ideas of another as one's own in any academic exercise (e.g. failing to cite references appropriately or taking verbatim from another source), whether it is done with the intention of being dishonest or not.
- Fabrication: unauthorized falsification or invention of any information or citation in an academic exercise (e.g. a paper reference).

Cheating on an exam, plagiarizing or any other form of academic dishonesty will be dealt with in accordance with the current UWO Student Discipline Code. The instructor reserves the right to assign a grade of F for the course should circumstances warrant.