Math 109  ELEMENTARY STATISTICS  
FALL 2013

<table>
<thead>
<tr>
<th>SECTION</th>
<th>TIME</th>
<th>DAYS</th>
<th>ROOM</th>
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<tbody>
<tr>
<td>081</td>
<td>6:00 – 9:00 pm</td>
<td>M</td>
<td>112A, Bordini Center, FVTC</td>
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Instructor:  Dr. K. L. D. Gunawardena  
E-mail:  gunaward@uwosh.edu

Office:  Swart 205  
Phone:  (920) 424-1056

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:
  + 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/](http://pearsonmylabandmastering.com/). To purchase online you will need the course ID  gunawardena60976
- TI-83 or TI-84 Plus calculator is **required.**

MyStatLab:
You will be doing homework problems and quizzes 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.
Exam Schedule:
- Exam 1: Chapters 1 – 5
  - October 14, 2013
- Exam 2: Chapters 6 – 10
  - December 9, 2013

Grading Percentage:
- Homework: 20%
- Quiz: 20%
- Exam 1: 30%
- Exam 2: 30%

Grading Scale:

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<tr>
<td>90 – 100</td>
<td>A</td>
<td>72 – 74</td>
<td>C</td>
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<tr>
<td>87 – 89</td>
<td>A-</td>
<td>69 – 71</td>
<td>C-</td>
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<td>84 – 86</td>
<td>B+</td>
<td>66 – 68</td>
<td>D+</td>
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<td>81 – 83</td>
<td>B</td>
<td>63 – 65</td>
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<td>78 – 80</td>
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<tr>
<td>75 – 77</td>
<td>C+</td>
<td>0 – 59</td>
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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: $\sigma$ known
7-4: Estimating a Population Mean: $\sigma$ 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: $\sigma$ known
8-5: Testing a Claim about a Mean: $\sigma$ 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.