Course: Math 227      Elementary Statistics  
Section 3313   TTh 7:00 pm – 9:05 pm,  BUNT 5  
Instructor: Yoon Yun  
Office Hours: TTH 1:15 pm-4:15 pm or by appointment  
Office: Faculty Bung D  
Phone: (818) 364-7691  
Email: yunyh@lamission.edu  
Web Site: http://lamission.edu/~yunyh  
Prerequisite: Successful completion of Math 125 or a passing score of math placement test.  
Important Dates:  
Sep. 12: Last day to ADD classes  
Sep. 26: Last day to DROP classes, without a “W”  
Nov. 10: Veterans Day Holiday (College closed)  
Nov. 21: Last day to DROP, with a “W”  
Nov. 27-30: Thanksgiving Holiday (College closed)  
Final Exam: Tuesday, Dec 16, 8:00-10:00 pm  
Course Description: We will cover the following topics:  
  • Chapter 1: The Nature of Probability and Statistics  
  • Chapter 2: Frequency Distributions and Graphs  
  • Chapter 3: Data Description  
  • Chapter 4: Probability and Counting Rules  
  • Chapter 5: Discrete Probability Distributions  
  • Chapter 6: The Normal Distribution  
  • Chapter 7: Confidence Intervals and Sample Size  
  • Chapter 8: Hypothesis Testing  
  • Chapter 10: Correlation and Regression  
Course Objectives: This course is an introduction of basic statistical concepts and techniques, which includes descriptive and inferential statistics, construction of statistical tables, display data with statistical graphs, correlation and regression, probability, statistical distributions, central limit theory, testing hypotheses & confidence interval of a single population for the population mean or population proportion. Minitab is used throughout the course to present graphs, to solve exercises, to perform a simulation, and to interpret & analyze application problems.  
Learning Outcomes:  
  • Classify branches of statistics, identify sources of data, evaluate sampling methodologies.  
  • Construct pie charts, bar graphs and histograms, calculate central measures; calculate the five numbers summary, calculate standard deviation.  
  • Calculate probabilities, define random variables, calculate the mean and standard deviation of binomial variables, calculate probabilities using the standard normal distribution tables.  
  • Apply the Central limit Theorem to calculate means and proportions, calculate probabilities for the sampling distributions of the mean and proportion.  
  • Use graphs to determine the shape of parent distributions and estimate the central measures of populations.  
  • Calculate confidence intervals, calculate sample size for means and sample proportions.  
  • Define and test hypotheses for the mean and proportion, apply the z- and t-tests in hypotheses testing, calculate p-values.
• Compare two proportions or two means and draw appropriate conclusions, construct confidence intervals for two sample means and two sample proportions.
• Calculate the correlation coefficient, determine the regression line.

**Homework**

Hand-written and computer homework will be assigned. Students are responsible to complete the assigned homework as each section is completed. Hand-written and computer homework will not be picked up or graded.

**Exams**

• There will be four classroom tests. If the final examination score is higher than the lowest score of all tests, its percentage score will be used to replace the lowest test score. There will be no make-up examinations. Any missed exam will receive a grade of 0.
• A comprehensive final exam will be given on Tuesday, Dec 16. There are no make-ups for the final and all students must take the final exam.
• All tests will be based on examples worked in class, assigned homework, and computer lab materials.

**Computer Component**

• Various topics in this course will be covered using Minitab software. Minitab software and the data sets needed for the class are available in all computers in the Math Center, LRC 205, LRC 234, and the LRC Computer Commons. The student version of Minitab and the data set CD are included with every new textbook for home use.
• There will be one computer-based project and one computer-based quiz covering all the lab materials. More detail will be announced during the lab.

**Grading:**

- In-Class 8%
- 4 exams 52%
- Computer project & Quiz 10%
- Final exam 30%

**Grading Scale:**

Letter grades will be determined by your overall percentage in the course:

- A = 90%-100%
- B = 80%-89.9%
- C = 70%-79.9%
- D = 60%-69.9%
- F = 0%-59.9%

**Attendance:**

Students are expected to attend all class meetings. Unexcused absences of four meetings may result in excluding students from class. Students themselves are responsible for dropping a class they no longer attend; failure to do so may result in a grade of F.

**Course Organization:** The course will follow the attached course schedule as closely as possible.

**Tutorial:**

Drop-in tutoring is available at the Math Center located in the basement of the Campus Center and in the Math Lab located in the Library Learning Center.

**Class comportment:**

All students are expected to arrive on time. Late arrivals are disruptive to both the lecturer and students. Once you are seated, do not leave the room until dismissed. Such comings and goings are also disruptive. Students must turn off cell phones while in class. Students are encouraged to ask questions and make comments on the lecture material. This should be done in a courteous manner by raising one’s hand and being recognized. Side conversations between students that disrupt the flow of the lecture will not be tolerated. It is the student’s responsibility to manage his or her academic workload. Should a student decide to stop attending class it is their responsibility to
drop the class. All students appearing on the grade roster will receive a grade regardless of whether they are attending classes or not.

How to maintain “A” Everyone starts the class with an “A”, so how do you keep it? First, it is very important to attend all class lectures. Second, in order to be good at math it takes practice, practice, and practice. This means you should do all of your homework and understand them. Do not just memorize how to do them, but understand the problem and how to solve it using the concepts learned in class. Get a study partner. Many times when a friend or study partner explains a problem or concept to you in a different way, it might make more sense. Also, you can keep each other accountable by making sure you do your homework in a timely manner. Finally, be well-prepared for exams. Do not try to “cram” before the test, but begin studying well before the test date. Get additional help if needed.

**Math 227 Elementary Statistics  Tentative Schedule**

<table>
<thead>
<tr>
<th>Date</th>
<th>Tuesday</th>
<th>Thursday</th>
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<tbody>
<tr>
<td>Sept 02/ Sept 04</td>
<td>Orientation, Ch1</td>
<td>Ch 2.1– 2.3</td>
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<tr>
<td>Sept 09 / Sept 11</td>
<td>Ch 2.4– 3.2</td>
<td>Ch 3.3– 3.5</td>
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<tr>
<td>Sept 16 / Sept 18</td>
<td><strong>Exam 1</strong> (Ch 1, 2 )</td>
<td>Lab I</td>
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<tr>
<td>Sept 23 / Sept 25</td>
<td>Ch 4.1– 4.3</td>
<td>Ch 4.4– 4.5</td>
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<tr>
<td>Sept 30 / Oct 02</td>
<td>Ch 4.6– 5.2</td>
<td>Review (Ch 3,4)</td>
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<tr>
<td>Oct 07 / Oct 09</td>
<td><strong>Exam 2</strong> (Ch 3, 4 )</td>
<td>Ch 5.3– 5.5</td>
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<tr>
<td>Oct 14 / Oct 16</td>
<td>Ch 6.1– 6.3</td>
<td>Ch 6.4– 6.5</td>
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<tr>
<td>Oct 21 / Oct 23</td>
<td>Ch 6.6– 6.7</td>
<td>Review (Ch 5,6)</td>
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<tr>
<td>Oct 28 / Oct 30</td>
<td><strong>Exam 3</strong> (Ch 5, 6 )</td>
<td>Lab II</td>
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<tr>
<td>Nov 04 / Nov 06</td>
<td>Ch 7.1– 7.2</td>
<td>Ch 7.3– 7.4</td>
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<tr>
<td>Nov 11 / Nov 13</td>
<td>Ch 8.1– 8.2</td>
<td>Ch 8.3– 8.4</td>
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<tr>
<td>Nov 18 / Nov 20</td>
<td>Ch 8.5</td>
<td><strong>Thanksgiving day</strong></td>
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<tr>
<td>Nov 25 / Nov 27</td>
<td>Review (Ch 7, 8)</td>
<td>Exam 4 (Ch 7, 8 )</td>
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<tr>
<td>Dec 02 /Dec 04</td>
<td><strong>Lab III</strong></td>
<td><strong>Lab IV</strong> Ch 10</td>
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<tr>
<td>Dec 09 / Dec 11</td>
<td><strong>Computer Quiz (Lab V)</strong></td>
<td>Review for the Final</td>
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<tr>
<td>Dec 16 / Dec 18</td>
<td>Final Exam (8:00-10:00 pm)</td>
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