

**WEBSTER UNIVERSITY**  
**LEAD6007.I1 Statistics**

Welcome to Statistics! I hope you will find this course enjoyable, enlightening, and not too threatening. It is a mathematics course, but the calculations are secondary to the concepts and ideas presented and explored. Statistics is a discipline in the branch of mathematics called Applied Mathematics and it is through its application that you will find it most useful.

The course will be held at **St. Louis University High School**. I have enclosed a map in case you are not familiar with the location or campus. Please park in the lot off Oakland Avenue just west of the school building and just east of the football stadium. There should be ample parking spots available. We will be meeting in **Room M112**, which is on the first floor, east side of the building. There are vending machines and restrooms close by. The course meets for eight weeks, starting **Tuesday, June 7, 2005** and ending **Thursday, July 28, 2005**, on the dates in the schedule below. In order to fulfill the meeting-time requirements for a three-credit course, the time for each class will be from **5:00 pm to 8:00 pm**.

The text for the course is *Barron's Statistics, 3<sup>rd</sup> Edition*, by Martin Sternstein, Ph.D. I will have a copy of the book for each student to purchase at the first class meeting. (approximately \$17). I have chosen this text for three reasons: (1) it is readable, comprehensible, and thorough with great explanations of statistics with minimal jargon and "fluff"; (2) it has lots of practice problems with good explanations of solutions, designed to help students prepare for the AP Statistics exam, which is comparable to college-level statistics; and (3) it's quite economical, especially compared to textbook prices (most of which are over \$100). We will also be using calculators and computers for data analysis. I will have calculators for each student to borrow throughout the course and we have access to laptop computers while we are in class.

**Instructor:**

Craig Hannick  
(314) 961-7866  
hannick@sluh.org

The assessment for the course will be as follows: We will have four (4) quizzes during the course and you will have a final project due on the last class day.

**Points:**

4 quizzes @ 25 points each:	100 points
Final Project	<u>100 points</u>
TOTAL	200 points

**Grading:**

186 to 200 points	A
180 to 185 points	A-
174 to 179 points	B+
166 to 173 points	B
160 to 165 points	B-
140 to 159 points	C

The quiz topics are listed on the syllabus below. The final project consists of running a statistical test comparing the means of two populations. (It sounds a lot worse than it actually is.) We will do some of the work for the project in class.

**Syllabus:**

Tues. 6/7	<b>Exploratory Analysis of Data:</b> Graphical Displays, Summarizing Distributions	
Thurs. 6/9	Comparing Distributions, Bivariate Data	
Tues. 6/14	Categorical Data, Frequency Tables	<b>Q: Summarizing/Displaying Data</b>
Thurs. 6/16	NO CLASS	
Tues. 6/21	<b>Planning a Study:</b> Methods of Data Collection, Surveys	
Thurs. 6/23	NO CLASS	
Tues. 6/28	Planning and Conducting Experiments	
Thurs. 6/30	NO CLASS – <i>use this time to gather data for final project</i>	
Tues. 7/5	<b>Probability:</b> Probability, Random variables	<b>Q: Data Collection/Experiments</b>
Thurs. 7/7	NO CLASS - <i>use this time to organize data for final project</i>	
Tues. 7/12	Normal Distribution	
Thurs. 7/14	Sampling Distributions	<b>Q: Normal Distribution</b>
Tues. 7/19	<b>Statistical Inference:</b> Confidence Intervals	
Thurs. 7/21	Tests of Significance—Proportions and Means	
Tues. 7/26	Tests of Significance—Chi-Square	<b>Q: Conf. Int./Significance Tests</b>
Thurs. 7/28	Analysis of Variance,	<b>Projects due</b>

The fine print: Note: Syllabus is subject to change at discretion of instructor.