

COURSE SYLLABUS

- COURSE TITLE:** Elementary Probability & Statistics MATH 200 LA (CRN# 31358) Spring 2009
- DESCRIPTION:** Measures of central tendency and dispersion; sampling distributions, statistical inference, regression and correlation. One hour of by arrangement lab per week is required.
- PREREQUISITES:** MATH 120 or 123 (grade "C" or better) or satisfactory score on Intermediate Algebra Placement Test.
- TRANSFER:** CSU, UC
- ATTENDANCE POLICY:** A student may be dropped from class whenever his/her total number of absences from class equals twice the number of sessions the class meets in one week.
- UNITS:** 4.0 units
- MEETING TIMES:** Tuesdays, **6:30 pm to 10:10 pm, (Error in schedule of classes)** Full semester Building 18-319
- INSTRUCTOR:** Rich Anderson Office: 18-319 (before class) Office Extension: 306-3425
Division Office: 306-3291 **e-mail: andersonr@smccd.net**
- CLASS WEBSITE:** www.smccd.net/accounts/andersonr
- MATERIALS:** Essentials of Statistics by Triola, 3rd Edition, Addison-Wesley
Graphing calculator: Texas Instruments TI-83 Plus or TI-84 (REQUIRED)
TI-83 Lab manual by Anderson (optional)
- TESTS:** There will be three tests. Tests will be announced at least two weeks in advance. No make-ups will given for any reason. A single missed test is replaced with the percentage score on the final examination. Any other missed tests are given a zero.
- HOMEWORK:** Homework is DUE WEEKLY at the **start of class**. It is to be handed in neatly completed and folded lengthwise with your name at the top WITH the section & problems listed.
- FINAL EXAM:** The final exam will be comprehensive. Make-ups will not be given except for the most compelling of reasons.
- VIDEOS:** You are required to view a weekly video on statistics. These videos are of excellent quality and add significantly to the course. They will be shown Tues. at 6:00 pm in 18-319. They can also be checked out for individual viewing in the Learning Center. A weekly video worksheet will be required. You will have one week to view the video(s) on your own. Video assignments may NOT be turned in late.
- GRADING:**
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| Letter grade only: | Videos | 10 % |
| | Homework & Quizzes | 10 % |
| | Chapter Tests | 50 % |
| | Final Exam | 30 % |
- ATTENDANCE** Attendance is extremely important. If you want to pass this course it is imperative that you attend each class meeting and complete all of your homework.
- CLASS CONDUCT:** No food or beverage (except bottled water) is allowed during class. No cell phones use is allowed during class.

COURSE OUTLINE

<u>Chpt</u>	<u>Description</u>
2	Summarizing and Graphing Data <ul style="list-style-type: none">• Frequency Distributions• Histograms• Statistical Graphs
3	Describing, Exploring, and Comparing Data <ul style="list-style-type: none">• Measures of Center• Measure of Variation• Measures of Relative Standing• Exploratory Data Analysis
4	Probability <ul style="list-style-type: none">• Fundamentals of Probability• Addition Rule• Multiplication Rule• Multiplication Rule: Complements and Conditional Probability
5	Discrete Probability Distributions <ul style="list-style-type: none">• Random Variables• Binomial Probability Distributions• Mean, Variance, & Standard Deviation for the Binomial Distribution <hr/> TEST 1
6	Normal Probability Distributions <ul style="list-style-type: none">• The Standard Normal Distribution• Applications of Normal Distributions• Sampling Distributions and Estimators• The Central Limit Theorem
7	Estimates and Sample Sizes <ul style="list-style-type: none">• Estimating a Population Proportion• Estimating a Population Mean: σ Known• Estimating a Population Mean: σ Not Known• Estimating a Population Variance
8	Testing Hypotheses <ul style="list-style-type: none">• Basics of Hypothesis Testing• Testing a Claim About a Proportion• Testing a Claim About a Mean: σ Known• Testing a Claim About a Mean: σ Not Known• Testing a Claim About a Standard Deviation or Variance <hr/> TEST 2
9	Inferences from Two Samples <ul style="list-style-type: none">• Inferences About Two Proportions• Inferences About Two Means: Independent Samples• Inferences from Matched Pairs
10	Correlation and Regression <ul style="list-style-type: none">• Correlation• Regression• Variation and Prediction Intervals• Rank Correlation
11	Chi Square and Analysis of Variance <ul style="list-style-type: none">• Multinomial Experiments: Goodness of Fit• Contingency Tables: Independence and Homogeneity• Analysis of Variance <hr/> TEST 3