

**CALIFORNIA STATE UNIVERSITY, HAYWARD
DEPARTMENT OF STATISTICS**

**STATISTICS 3502
Spring 2001**

Lecture: MW 4-5:50 ScN 207

Instructor: Prof. Eric A. Suess **Office:** ScN 319 **Phone:** 885-3879 **e-mail:** esuess@csuhayward.edu

Office Hours: MW 3:00-4:00 or by appointment and 24/7 by e-mail

My Website: <http://www.telecom.csuhayward.edu/~esuess/>

Required Text:

- Ott: Statistical Methods and Data Analysis 4th ed, Duxbury 1993.

Material To Be Covered:

- Basic Statistical Concepts: population, sample, variability, distribution, statistical reasoning
- Types of Data: quantitative, qualitative
- Descriptive Statistics: graphical methods (pie chart, bar graph, stem-plot, histogram, scatterplots) and numerical methods (mean, median, mode, percentiles, quantiles, variance, standard deviation, IQR)
- Basic Probability Concepts: sample space, outcome, event, probability, mutually exclusive, additive rule, independence, multiplication rule
- Probability Models: discrete models (binomial), continuous models (normal, t, exponential), expectation, variance
- Sampling and Sampling Distributions: simple random sampling (SRS), Central Limit Theorem (distribution of the sample mean)
- Statistical Inference: confidence level, confidence intervals, statistical significance, hypothesis tests
- Linear Regression: correlation, least-squares regression line, hypothesis testing for model significance
- Chi-square Tests: Test of Homogeneity, Test of Independence
- Analysis of Variance: Comparison of many group means

Homework: A list will also be on the website.

Quizzes and Exams: Two short quiz, two midterms will be given and the final. You are expected to bring a calculator with you to all exams and your Student I.D. for identification.

Grading:

- Homework and Quizzes 20%
- Midterm I 25%
- Midterm II 25%
- Final 30%

Policy on Make-up Exams: You are expected to take the quizzes and exams at the scheduled times. In case of genuine emergency, illness or hardship, for which you can present written documentation I may agree to arrange for a make-up exam. Make-up exams must always be arranged BEFORE the regular exam is given and always take place AFTER the regular exam. Quizzes *may not* be made up!