

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

**STATISTICS 1000  
Spring 2001**

**Lecture:** MWF 10:40-12:05 NSc 207

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

**Office Hours:** MWF 10:00-10:40 or by appointment and 24/7 by e-mail

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

**Required Text:**

- Larson and Farber: Elementary Statistics, Picturing the World, Prentice Hall 2000

**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), expectation
- 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
- Other Topics: multiple regression, analysis of variance (ANOVA), chi-square tests

**Homework:** Weekly assignments will be given each Tuesday at the beginning of class. A list will also be on the website.

**Quizzes and Exams:** A short quiz will be given every Thursday, two midterms will be given and the final. The final will have two parts: the first is the Departmental Common Final, which is a 20 question multiple choice test, and the second part will be written by the instructor. You are expected to bring a calculator with you to all exams and your Student I.D. for identification.

**Grading:**

- Homework, Projects, and Quizzes 25%
- Midterm I 25%
- Midterm II 25%
- Final 25%

**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!

**Class Expectations:**

- No talking when the instructor is lecturing. No reading newspapers. No eating. Do not get up to sharpen your pencil during class.
- Do attend class every day. Do bring your book. Do bring questions related to class, lecture, or homework. Do raise your hand when you have a question. Do switch off all beepers and cellular phones.
- If for some reason you miss a day of class, it is your responsibility to get a copy of the notes from someone who attended the lecture that day so you can catch-up.