CALIFORNIA STATE UNIVERSITY, HAYWARD
DEPARTMENT OF STATISTICS

STATISTICS 3910 - Statistical Software Design
Statistics 4910 - Advanced Statistical Software Design
WINTER 2002

Lecture: Th 6:00-9:30, ScN207

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

Office Hours: Th 5:00-6:00pm or by appointment

Class Web-page: http://www.sci.csuhayward.edu/~esuess/

Required Texts:

- Your **STATISTICS 1000** text.
- (3910) Green, Salking, and Akey: Using SPSS for Windows, Analyzing and Understanding Data, 2nd ed., Prentice Hall, 2000.
- (4910) Cody and Smith: Applied Statistics and the SAS Programming Language, 4th ed., Prentice Hall, 1997.
- Yafee with McGee: Introduction To Time Series Analysis and Forecasting With Applications of SAS and SPSS, Academic Press 2000.

Recommended Texts:

- Delwiche and Slaughter: The Little SAS Book, SAS Institute Inc., 1998.
- SAS manuals: Base SAS, SAS/STAT, SAS/Graph, SAS/ETS.

Material To Be Covered: In this course the use of statistical software will be emphasized to implement basic statistical analysis techniques such as Graphical and Numerical Descriptive Statistics, Correlation and Regression, Logistic Regression, Confidence Intervals, Hypothesis Testing, and Analysis of Variance. As an area of focus Times Series and Forecasting methods will be discussed. Time Series methods will be presented such as Decomposition Models, Exponential Smoothing, Box-Jenkins ARIMA Models, Seasonal ARIMA Models, and Autoregressive Error Models. Statistics 3910 students will primarily use SPSS and Statistics 4910 students will use SAS.

Prerequisites:

- Completion of an introductory Statistics course such as Statistics 1000, knowledge of the Windows operating system, and experience with MS Office software (Word and Excel).
- Time outside of class to complete the computer assignments.

Homework: Weekly homework assignments will be given each Thursday and will be collected the following Thursday. It is required that the solution to each assigned problem be prepared and edited in MS Word. Hand-written solutions will not be accepted for problems that require the use of statistical software.

Grading: Homework 30%, Project I 15%, Midterm 20%, Project II 15%, Final 20%

Policy on Make-up Exams: You are expected to take the 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.