
STATISTICS 479: Computer Processing of Statistical Data

Fall 2010

REQUIRED TEXTS AND OTHER MATERIAL:

- *SAS for Data Analysis* authored by Marasinghe and Kennedy and published by Springer (available in the bookstore and at Amazon.com)
- Selected SAS Documentation: To be printed from the Web as needed
- Sample SAS programs and output (to be printed from the Stat479 homepage as needed)

SUGGESTED REFERENCES:

SAS (Version 9.2) manuals (HTML and pdf formatted versions) are available online on the web. For your convenience, links to these online manuals are provided in the Stat479 homepage.

- Base SAS Software
 - Base SAS Procedures Guide: Statistical Procedures
 - SAS Language Reference: Concepts
 - SAS Language Reference: Dictionary
- SAS/GRAPH Software
 - Reference
- SAS/Stat Software
 - User's Guide

INSTRUCTOR:

Name: Mervyn Marasinghe, Ph.D.

ISU Phone: 294-7774

Home Phone: 233-9074 (prefer school contact or e-mail)

Office: 2417 Snedecor Hall

Office Hours: T 11:00-12:00 F 11:00-12:00 (or by appointment)

E-mail: mervyn@iastate.edu

Class Meeting Room: LeBaron 2069

Teaching Assistant:

Name: Rui Zhong (Amy)

ISU Phone: 294- 2423

Office: 2207 Snedecor Hall

Office Hours: TR 1-2 in 2404 Snedecor Hall

E-Mail: zhongrui@iastate.edu

GRADING POLICY:

Final course grades will be determined by the percentage of total points earned on the scale 90 for an A, 80 for a B etc., with grades assigned to those near cut-off values. Students earn points by satisfactory performance in the mid-term and final examinations and by turning in completed project reports and homework assignments according to the following schedule:

Evaluation Method	Available Points	Tentative Dates /Due Dates
Exam I (75 min)	100	September 28
Exam II (75 min)	100	November 9
Final Exam	200	December 16 (9:45-11:45 a.m, tentative)
Labs/Homework	200-300	Approx. Weekly
Total	600-700	

The above weighting scheme has been determined by the instructor's past experience in this class as well on his perception of appropriate means for demonstrating knowledge and understanding of the course material.

ATTENDANCE:

Attendance is compulsory but will not be enforced. However, students are responsible for keeping track of all lectures,

reading material, and homework assignments. Unless prior arrangements have been made, do not expect the instructor to fill you in on lecture material that you missed because of an absence. Borrow notes from a friend.

HOMEWORK:

Unless prior arrangements are made, late homework that is turned in before previous homework has been graded and handed out is penalized at a rate of 20% of points that may be earned per each day that it is late. Homework submitted after this time receives no credit. Incomplete or 'ungradable' homework will be returned without grading. You may re-submit these within a reasonable time for partial credit

ACADEMIC HONESTY:

All work submitted for grading should be the result of individual effort. You are encouraged to discuss homework problems in general terms with other students and with the instructor. However, you should never share or discuss your solutions with anyone other than the class instructor. If you are having difficulty debugging programs, turn first to debugging help available on campus, and then to the instructor.

The instructor reserves the right to assign no credit or fail any student who is found guilty of misrepresenting (or helping to misrepresent) the origin of work submitted for grading (be it homework, a programming assignment, or an exam).

DISABILITY ACCOMODATION:

If you have a documented disability and anticipate needing accommodations in this course, please make arrangements to meet with the instructor within the first two weeks of the semester. Retroactive request for accommodations will not be honored. Please have Disability Resources complete a SAAR form verifying your disability and specifying the accommodations you will need for this course. You will need to present this form to the instructor.

COURSE OUTLINE:

- **Introduction to SAS Language (6 classes)**
Statements used in SAS DATA and PROC steps. SAS Data sets, Flow of activities in a Data Step, Data Step programming. Storing SAS Data sets permanently. Procs PRINT, MEANS, SORT, CORR. Introduction to SAS ODS System.
- **SAS Applications (5 classes)**
Data Step applications, Procs UNIVARIATE, PRINT, PLOT, FREQ, SUMMARY, TABULATE. Examples that illustrate data entry, elementary analysis,

management and report generation using a large data set.

- **SAS/GRAPH (5 classes)**

Introduction to SAS Graphics Procedures GPLOT and GCHART. Applications include descriptive graphical displays of one and two dimensional data, quantile-quantile plots and multivariable displays. SAS Macros for dot charts, boxplots, scatter plot matrices and starplots. Graphics from other procs such as BOXPLOT, REG and UNIVARIATE.

- **SAS Procedures for Data Analysis (12 classes)**

Procs MEANS, ANOVA, GLM, REG, MIXED. Use of SAS procedures for the analysis of specialized statistical applications: one-way and two-way classifications with unbalanced data, covariates, random and nested effects, a split-plot design, regression diagnostics and subset selection in regression.
