

ROCHESTER INSTITUTE OF TECHNOLOGY
School Psychology Program

Course 0527-811-01
Vincent Pandolfi, Ph.D.

Winter, 2007
Course Outline

Inferential Statistics II

Class Meetings: Wednesday 12-1:50pm
 Building 9 Room 3149

Instructor: Vincent Pandolfi, Ph.D., Ext. 475-2875

Office Hours: Wednesday & Thursday 2-4pm
 Or by appointment

Required Course Textbooks:

Hinkle, D.E., Wiersma, W., & Jura, S.G. (2002). *Applied statistics for the behavioral sciences (5th Ed.)*. Boston: Houghton Mifflin Co.

Recommended References:

American Psychological Association (2001). *Publication manual of the American Psychological Association (5th ed)*. Washington D.C.: Author.

Norusis, M.J. (2006). *SPSS 14.0 guide to data analysis*. Upper Saddle River, N.J.: Prentice-Hall.

SPSS, Inc. (2005). *SPSS Base 14.0 user's guide*. Chicago: Author.

Course Description:

This course will assist students in understanding advanced concepts and methods of multivariate inferential statistics. Topics include correlation, linear regression, one-way and two-way analysis of variance, and post-hoc comparisons. Students will learn to integrate concepts with computer applications and interpretations.

Course Objectives:

Through this course, students will demonstrate an understanding of:

1. general concepts in multivariate statistics;
2. assumptions underlying statistical analyses;
3. concepts and interpretation of bivariate zero-order, partial, and semi-partial correlations;

4. concepts and interpretation regarding simple and multiple linear regression;
5. concepts and interpretation regarding the analysis of variance;
6. computer applications of data analysis procedures.

Course Requirements:

Data Sets: Two take-home data sets will be given during the quarter. Teams of students are to analyze data with SPSS. Special sessions will be arranged with the instructor during class time to review the data sets. Data set answers will be orally defended by the student teams. Teams will submit an APA-style results section due one week after the data set meeting. Grades will be assigned to each individual student based on the quality of the team performance.

Exams: Two noncumulative multiple choice exams will be given. The exams are based on all course material covered during the quarter.

Grading:

Each student's overall grade will be based on a composite of all work during the quarter. Course requirements are weighted as follows:

Data Sets	30%
Exam I	35%
Exam II	35%

Notes:

Unusual circumstances that result in a student's inability to attend a data set meeting or take an exam will be evaluated by the instructor on an individual basis. A student's grade for the data set or exam will be determined at the instructor's discretion.

Individuals with Disabilities:

Persons with disabilities requiring specific accommodations should speak privately with the instructor to discuss and plan for individualized needs. It is the student's responsibility to initiate this discussion.

Academic Honesty:

All students will abide by the RIT Academic Honesty Policy (see attached) and the guidelines set forth in the *RIT School Psychology Program Student Handbook*.

Course Outline- Winter Quarter, 2007

<u>Week</u>	<u>Topics</u>	<u>Hinkle</u>
12/5	Introduction/Overview Correlation & Hypothesis testing	5 10 (pp.213-223); 12 (pp.276-279)
12/12	Linear Regression: Estimation & Hypothesis Testing	17
12/19	Linear Regression (cont'd) Multiple Regression	18
1/9	Multiple Regression (cont'd)	
1/16	Multiple Regression (cont'd)	
1/23	Data Set #1 One-Way ANOVA	14
1/30	Exam I Results Section #1 Due One-Way ANOVA: Multiple Comparisons	15
2/6	One-Way Repeated Measures ANOVA Two-Way ANOVA	16
2/13	Two-Way ANOVA (cont'd) Data Set #2	
2/20	Two-Way ANOVA (cont'd) Results Section #2 Due	
2/27	EXAM II	