



**BHS 310 *Quantitative Methods for the Behavioral Sciences (3-3)*
Winter 2007**

Class Schedules:

Class Times: Tu/Th: 4:00-5:15 pm

Room: 519

Instructor Information

Instructor: Alex Sanderson

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Office: 503

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Course Description:

This course is designed to give students a basic understanding of descriptive and inferential statistics. Emphasis is placed on practical application and students will learn to analyze and interpret basic statistical research. They will also learn to use computer software (SPSS) to run analyses and create their own statistical tables/charts. The course will emphasize practical applications and as such, lab time will be spent working on the computer. Students will be required to work in groups for all lab work. As part of the course requirements, students will also participate in a group project where they will analyze data and present it in a written assignment.

Textbooks

Levin, J. & Fox, J.A. (2006). *Elementary Statistics in Social Research (10th ed.)*. Allyn & Bacon, Boston.

Green, S. B. & Salkind, N.J. (2005). *Using SPSS for windows and macintosh: Analyzing and understanding data (4th ed.)*. Pearson Prentice Hall, New Jersey.

Attendance: The general expectation is that students will attend all classes in which they are registered. After three (3) unexcused absences (per term), the instructor reserves the right to ask a student to withdraw from the class.

Course Requirements

Students need to be competent using computers and have a good working knowledge of basic mathematics (e.g., fractions, decimals, equations) in order to

complete the course successfully. No statistical software experience is expected. If your math skills are a bit rusty, there is a basic math review in the back of the Levin text. Evaluation will be based on four exams, a written assignment and homework/lab assignments. Students will need a calculator, which can perform Σx , Σx^2 , mean, variance and standard deviation.

Course Grade

The first mid-term is worth 10%, the second mid-term is worth 15%, the third mid-term is worth 20%, and the final exam will be worth 25%. The written assignment and the homework/lab assignments will be worth 15% each. All assignments must be completed in order to pass the course.

Written Assignment

This course is designed to provide students with basic statistic skills so that they can apply their knowledge of statistical concepts to 'real life' research and data analysis. This assignment gives you the opportunity to apply the concepts you have learned to an original research paper using a data set collected by the students. With your lab group, you will write a 4-5-page paper using double spaced type (1" margins and no more than 12 inch font) in which you demonstrate your ability to analyze variables and describe and interpret patterns within a data set. You will also need to present and interpret a table and a graph within the body of your paper. We will be discussing formatting (APA style) and different types of data analysis in class. The paper is due on **April 16th**. Please note all members of a group will receive the same mark on their final product

Examinations:

The first midterm is scheduled for February 1st, the second midterm for March 8th, the third midterm for April 3rd and the fourth and final exam will be handed out on April 17th as a take home exam. Graded final examinations will be available for supervised review at the request of the student. Please contact the Academic Dean.

Grading: The available letters for course grades are as follows:

Percentage:	Letter Grade:	Grade Point Weight:
96-100	A+	4.0
91-95	A	4.0
86-90	A-	3.7
82-85	B+	3.3
75-81	B	3.0
72-74	B-	2.7
68-71	C+	2.3
63-67	C	2.0
60-62	C-	1.7
56-59	D+	1.3
50-55	D	1.0
0-49	F	

Course Schedule

Part I:

Introduction to the Course
The Connection Between Statistics and Research.
Read: Chap. 1
Organizing Data: Distribution and Graphics
Read: Chap. 2
Central Tendency
Read: Chap. 3

EXAM 1 – February 1st, 2007

Part II:

Variability
Read: Chap. 4
Probability and Normal Curve
Read: Chap. 5
Samples and Populations
Read: Chap. 6

EXAM 2 – March 8th, 2007

Part III:

Testing Differences Between Means
Read: Chap. 7
Analysis of Variance
Read: Chap. 8
Non-Parametric Tests
Read: Chap. 9 and readings provided by the instructor

EXAM 3 – April 3rd, 2007

Part IV:

Parametric Correlation
Read: Chap. 10
Non-Parametric Correlations
Read: Chap. 12
Regression
Read: Chap. 11

EXAM 4 (FINAL) Given out on April 17th and Due on April 23rd

Important Notes:

It is the responsibility of all students to become familiar with and adhere to academic policies of as are stated in the Student Handbook and Academic Calendar.

Personal information, that is information about an individual that may be used to identify that individual, may be collected as a requirement as part of taking this class. Any information collected will only be used and disclosed for the purpose for which the collection was intended. For further information contact the Privacy Compliance Officer at privacy@auc-nuc.ca.

The last day to enter a course without permission and /or voluntary withdrawal from a course without financial penalty 19 January 2007

The last day to voluntarily withdraw from a course or change to audit without academic penalty 9 March 2007

Although extensions to coursework in the semester are at the discretion of the instructor, students may not turn in coursework for evaluation after the last day of the scheduled final examination period unless they have received permission for a "Course Extension." Alternative times for final examinations cannot be scheduled without prior approval. Requests for course extensions or alternative examination time must be submitted to the Registrar's Office by the appropriate deadline. Course extensions are only granted for serious issues that arise "due to circumstances beyond the student's control."

We are committed to fostering personal integrity and will not overlook breaches of integrity such as plagiarism and cheating. Plagiarism and cheating can result in a failing grade for an assignment, for the course, or immediate dismissal from the university college. Students are expected to be familiar with the policies in the current Academic Calendar and the Student Handbook that deal with plagiarism, cheating, and the penalties and procedures for dealing with these matters. All cases of academic dishonesty are reported to the Academic Dean.

Students are advised to retain this syllabus for their records.