

Instructor: Dr. Robert Rosati

Course: Introduction to Statistical Methods

Class Meetings: Lecture Thursday 6:30 – 8:20

Office Hours: Thursday 5:50 - 6:20 (Appointments are Recommended)
(212 Hauser) Thursday After Class

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(516) 495-9501
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Principal Course Textbook:

King, B.M. & Minium, E.M. (2008). Statistical reasoning in the behavioral sciences (5th ed.). New York: John Wiley & Sons.

Optional:

Norusis, M.J. (2009). SPSS 16.0 Guide to Data Analysis. Englewood Cliffs, N J: Prentice Hall. (<http://www.spss.com>)

SPSS. (2008). SPSS 16.0 for Windows Student Version. Englewood Cliffs, N J: Prentice Hall. (<http://www.prenhall.com>)

(This text includes software that allows you to run SPSS on a Windows personal computer. It should only be purchased if you have access to this type of system. Before purchasing the software, see the instructor.)

Supplies:

Inexpensive Statistical Calculator

Important Dates:

10/15 - Exam 1
11/12 - Article Approved
12/3 - Project Due
12/17 - Final (Exam 2)

Readings and Homework:

A series of readings have been assigned that follow along with the schedule of lectures. Students are responsible for reading each chapter and should begin readings immediately.

Homework assignments will be made periodically during the course (see page 4). Unless told otherwise, the assignment is due the week after the chapter is discussed in class. When handing in all homework assignments always try to illustrate answers with sufficient detail. Neatness is also very important. Late homework will not be accepted unless there are extenuating circumstances. **Further, assignments will not be accepted after two weeks from the due date.**

Project:

You will need to select a published study in a medical journal (e.g. JAMA, New England Journal, Annals of Internal Medicine) or another type of scientific journal and write a short article that describes the findings from the study for the general public. The article should be 500 – 1,000 words. Select three published papers that you are interested in and submit them to the professor prior to writing the article. When handing in your article, include a copy of the original published paper. Check the schedule for due dates.

Exams:

Two Exams will be given throughout the semester. Exams will cover all readings and lectures from this course. No make up exam is allowed unless there are extenuating circumstances. Please contact me as soon as possible if you miss an exam.

Grading:

Each student's grade will be based on a composite of all work assigned this semester. Composite is as follows:

Homework	20%
Project	20%
Exam 1	30%
Exam 2	30%

Lecture and Reading Schedule

Week	Dates	Topic	Chapter
1	9/3	Course Overview, Preliminary Concepts	(King & Minium) 1, 2 (Skip 2.7-2.9)
2	9/10	Frequency Distributions	3
3	9/17	Central Tendency, Measures of Variability	4, 5
4	9/24	Normal Curve, Raw to Standard Scores	6
5	10/1	Pearson Correlation Coefficient, Rank Order Correlation	7
6	10/8	Bivariate Regression and Prediction	8, 9
7	10/15	Exam 1	
8	10/22	Statistical Sampling, Probability	11, 10
9	10/29	One Sample Hypothesis Testing, Related Issues in Hypothesis Testing	12
10	11/5	Two Sample Hypothesis Testing	14, 15
11	11/12	Confidence Intervals, Type I and II Errors --- Article Approved ---	17, 13
12	11/19	Analysis of Variance (ANOVA)	19.1-19.12
13	11/26	No Class	
14	12/3	Planned and Post Hoc Comparisons, Two Way ANOVA --- Project Due ---	19.13-19.16, 20.1-20.9
15	12/10	Chi-Square, Nonparametric Statistics	18, 21
16	12/17	Final (Exam 2)	

King & Minium Homework Assignments

Chapters are in the order of when the material is covered in class.

Chapter	Exercise
1	1,2,4,7,10,11,12
2	1,5,7,19
3	2,4,13
4	1,10,12,13,14
5	4,5,8,10,21,25
6	2,5,6,7,9,10,12
7	1,3,8,12,18,19
8	1,2,5,13,19
9	9,14,15,16,17,19
11	1,2,3,8,11
10	1,2,4,5,6
12	3,7,8,11,12,14,17
14	3,4,10,11
15	3,4,8
17	1,2,3,4
13	1,2,7,10,17
19	1,3,4,5,7,14,16
20	3,5
18	1,5,8,11,12,15
21	2,5,6

08/31/09