

**Public Affairs 818:
Quantitative Tools for Public Policy Analysis**

Fall 2007

Professor: Geoffrey L. Wallace

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Course Website: http://www.ssc.wisc.edu/~gwallace/PA_818/pa_818.htm

Teaching Assistant: Jonathan Hore

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Office Hours: TBA

Class Meeting Times:

Lecture 1: MW, 3:30 to 4:45 in 6102 Social Sciences.

Lecture 2: W, 6:00 to 8:30 in 6116 Social Sciences.

Discussion 301: Thursday, 9:55 to 10:50 AM in 1140 Gym-Nat.

Discussion 302: Thursday, 3:30 to 4:25 PM in 54 Bascom Hall.

Discussion 303: Thursday, 2:25 PM in 383 Van Hise

Course Description: Quantitative Tools for Public Policy Analysis provides an introduction to statistical methods used in public policy. The course will cover the basics of probability, statistics, and quantitative methods with an emphasis of conferring an understanding of statistical inference and its applications to policy analysis. Prerequisites: Graduate Standing.

Required Text: Modern Business Statistics with Microsoft Excel, 2e by Anderson, Sweeney, and Williams. MBS is available for purchase at the UW Bookstore. In PA 818 the textbook is used primarily as a reference. It compliments to what is covered in lecture, but is not a lecture substitute. Some continuing La Follette students may have first edition books that they are willing to part with at discounted prices. These first edition books are a cheap, but viable, substitute for the second edition. The differences between the first and second edition of the MBS are small for the chapters covered in PA 818.

Course Requirements: Students are expected to attend all lectures and discussions sessions. In addition, students will be responsible for the completion of weekly problem sets. These problem sets will be graded using a check+, check, check- grading scale. Students are encouraged to work in groups on problem sets, but each student must turn

their own work. Under no circumstance will late homework be accepted. The problem sets will account for 20 percent of the grade and are intended to provide intensive practice in applying the tools developed in lecture. You should look at homework as an opportunity to make some mistakes and learn from them. We expect that you will put time and effort into completing assignments, but we do not expect they will be perfect and error free.

Discussion Sections: All students enrolled in this class should be assigned to a discussion section with a Jonathan Hore. These discussion sections will meet once a week throughout the course of the semester. In discussion sections the problem sets from the previous week will be reviewed, old material may be rehashed, questions will be answered, and, on occasion, new material will be presented. To get the most out of the course attendance and active participation in these discussion sections will be vital.

Exams: There will be two midterm examinations and one final. The midterm examinations are scheduled during regular class hours and will cover material covered over the course of the previous 4 to 6 weeks. The final examination, which will be given at some prior to the last day of class, is cumulative.

Because I am teaching two sections of the same course and it is difficult to write two fair exams, students in both lectures will be asked to take midterm exams at the same time. Both midterm examinations will be taken during the late lecture period (W 6:00-8:30). Rooms for the midterm exams will be announced at a later date.

Grades: The following weights will be used in computing your final grade

Midterm Exam 1 . . .	20 percent
Midterm Exam 2 . . .	20 percent
Final Exam	30 percent
Weekly Homework .	20 percent
Participation	10 percent

If you have questions about the grading of your examination or homework assignments please contact Jonathan. In most instances questions will be answered and mistakes will be corrected as a result of these interactions. If, after meeting with your Jonathan to discuss questions about the grading of your examinations, you are still unsatisfied, email me an explanation of the grading dispute and I will intervene.

Tentative Class Schedule (subject to change)

Dates	Topics(s)	Readings
Sept. 3, 5	Syllabus	Chapter 4
Sept. 10, 12	Intro to Probability, Probability Distributions	Chapters 4 & 5
Sept. 17, 19	Probability Distributions	Chapter 6
Sept. 24, 26	Sampling and Sampling Distributions	Chapter 7
Oct. 3, 5	Interval Estimation	Chapter 8
Oct. 8	Hypothesis Testing	Chapter 9
**MIDTERM #1 – Wednesday October 10 – 6:00-8:00 PM – room TBA		
Oct. 15, 17	Hypothesis Testing / Statistical Inference – Two Populations	Chapters 9 & 10
Oct. 22, 24	Statistical Inference – Two Populations/ Inferences About Population Variances	Chapters 10 & 11
Oct. 29, 31	Inferences About Population Variances/ Regression Analysis	Chapters 11 & 14
Nov. 5	Regression Analysis	Chapters 14 & 15
**MIDTERM #2 - Wednesday November 7 – 6:00-8:00 PM - room TBA		
Nov. 12, 14	Regression Analysis	Chapter 15
Nov. 19, 21	The Empirical Human Capital Model	No readings
Nov. 25, 27	The Empirical Human Capital Model	No readings
Dec. 2, 4	Estimating Returns to Scale	No readings
Dec. 9, 10	Estimating Returns to Scale	No readings
**FINAL EXAM –TBA		