MA 511 **Applied Statistics for Engineers and Scientists** **Fall 2008**

Instructor: Jayson D. Wilbur (`jwilbur@wpi.edu`)

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Lecture time and place: Mondays 5:30–8:20pm in Stratton Hall Room 202

Textbook: *Applied Statistics for Engineers and Scientists* by Petruccelli et al. (ISBN 0-13-565963-1)

Prerequisite: A knowledge of differential and integral calculus will be assumed.

Course objectives: To introduce graduate students to fundamental statistical concepts and methodology.

Grades: Your semester grade for this course will be determined based on the number of points you earn on homework (50%), exams (40%) and the project (10%).

Homework

- There will be ten homework assignments during the semester, each contributing 5% toward your final course grade.
- When turning in homework, each problem must be presented in order. This includes all relevant graphs and tables, which must be easily readable and appropriately labeled.
- You may discuss homework assignments with your classmates. However, outright copying is unacceptable. A good rule of thumb is that it is fine to talk together about how to do a problem, but then go do it and write it up yourself, possibly comparing answers afterward if you are unsure. If you are unsure whether an activity would constitute a violation of the WPI academic honesty policy (`http://www.wpi.edu/Pubs/Policies/Honesty/policy.html`), please ask the instructor.

Exams: There will be two in-class open-book open-notes exams. Makeup exams will not be given unless arrangements have been made prior to the exam, and then only in extreme circumstances.

myWPI: The myWPI system will be used to distribute assignments, data and other materials related to this course. It is your responsibility to make sure your myWPI account is functioning properly.

Course accommodations: If you need course adaptations or accommodations because of a disability or medical condition please discuss this with the instructor as soon as possible.

Date		Topic	Related material in textbook	Assignment Due
Sep	8	Data Collection	3	
Sep	15	Summarizing Data	1-2	Homework 1
Sep	22	Statistical Models	4	Homework 2
Sep	29	Models and Inference	4-5	Homework 3
Oct	6	Estimation	5	Homework 4
Oct	13	Hypothesis Testing	6	Homework 5
Oct	20	Hypothesis Testing	6, 7.4	Homework 6
Oct	27	Analysis of Variance	9	Homework 7
Nov	3	Exam 1	1-6	Exam Preparation
Nov	10	Correlation and Regression	7	Homework 8
Nov	17	Multiple Linear Regression	8	Homework 9
Nov	24	Project Presentations and Additional Material (?)	7-8 (?)	Homework 10
Dec	1	Project Presentations		Project Report
Dec	8	Exam 2	7-9	Exam Preparation
Dec	15	Reserved for makeup class		