

Yoshinori "Kamo" Kamo  
#114 Stubbs Hall (8-5353, kamo@lsu.edu)  
Office Hours: 1:30-2:30, Tue., walk-in, or by appointment  
Class Hours: 12:00-1:20, T/Th (#26, Stubbs)

Textbook:

Kutner, Michael H., Christopher J. Nachtsheim, and John Neter. 2004. Applied Linear Regression Models, Fourth Edition, Chicago: McGraw-Hill/Irwin.

It may be expensive, but it is considered the best among many regression instructors. You can buy them at Amazon.com or other online sources. If the enclosed CD is missing, don't worry. You can easily make a copy. If you can find a paperback version (International Edition), that's fine. In addition, the first half of Applied Linear Statistical Models 5ed (2013) is reported to be identical. This one is available for \$25 or so (used copies).

Course Objectives:

To learn the logic and basic operations of regression analysis to the extent that students feel comfortable in designing and conducting their own research using this method. Also, they will be able to understand and criticize most of the social science literature based on the regression model.

Exams/Grades:

There will be two exams; midterm and final. The final will not be cumulative, but the understanding of previous contents will be required.

Roughly bi-weekly homework either based on hand-calculation or using SPSS is assigned. Some questions come from those at the end of each chapter of the textbook and others from different sources. I neither encourage nor discourage students working on homework assignments in groups. I, however, stress that you have to do your own work (i.e. no common calculation errors). Violators to this rule will face negative consequences.

A term project involving General Social Survey (GSS) or data set of your choice is also assigned. We will discuss more on this as the semester progresses.

Basic weights of each exam/assignment are as follows:

Midterm	25%
Final	30%
Homework	30%
Project	15%

Adjustments may be made to come up with the best weighted average for each student.

Letter grades (A+, B, C-, etc.) are given with the following criteria.

A+, A, A-: Solid understanding of the course materials and sufficient knowledge/skill to conduct own regression-based research.

B+, B, B-: Minimum understanding of the materials and basic knowledge/skill to conduct research.

C+, C, C-: unsatisfactory understanding of the materials and insufficient knowledge/skill for research.

### Computer Applications:

GSS data will be made available, and students use either their own PC (with SPSS) or PCs in computer labs. Even if you use SAS, Stata, or other statistical packages for your other projects, you have to use SPSS in this class. I will NOT allow you to use SPSS "Pull-down" menu, by the way. You have to supply Syntax for all assignments involving SPSS. More on SPSS in the coming lectures.

For the first couple of weeks, spread sheet programs (e.g. Excel) are helpful and in some cases necessary, given Excel is provided free of charge through LSU. We will discuss more on this in the lecture.

### Very Approximate Class Schedule:

<u>Date</u>	<u>Content</u>	<u>Reading Assignment</u>
1/10	Quiz/Syllabus	
1/15, 17	Absolute Basics	Chapter 1
1/22, 24, 29, 31, 2/5, 7	Inferences, $t^*$ , $F^*$ , SPSS, etc.	Chapter 2
2/12, 14	Diagnostics	Chapter 3
2/19, 21	Matrix Approach	Chapters 4 + 5
2/26, 28	Multiple Regression	Chapters 6 + 7
3/5	<u>Mardi Gras No Class</u>	
3/7	Multiple Regression II	
3/12	<u>Midterm Exam</u>	
3/14	Multiple Regression II (cont.)	
3/19, 21	Polynomial and Dummy Variables	Chapter 8
3/26, 28	Model Building I	Chapter 9
4/2, 4	Model Building II, III	Chapter 10
4/9, 11	Factor Analysis	To be announced
4/16, 18	<u>Spring Break: No Class</u>	
4/23, 25	Limited Dependent Variables	Chapter 14
<u>5/3 (Fri)</u>	<u>Final Exam</u> (Tentative Date)	To be discussed
<u>5/6 (M)</u>	<u>Term Paper Due</u>	