

Colby College

Department of Mathematics

**MA231 – Applied Statistics and Regression Analysis
Spring 2009**

Class Meetings:

Section A:	MTWF 10:00-10:50	Mudd 405
Section B:	MTWF 12:00-12:50	Lovejoy 208

Professor:

Liam O'Brien
Mudd 401
859-5838

lobrien@colby.edu

Office Hours:

MWF 3:00-4:00, by appointment, or whenever my door is open. I will also announce additional office hours each week and post a weekly schedule on my door. I try to be in my office as much as possible – if you have a difficult time finding me then send me an email.

Course Requirements and Grading:

Homework (20%) will be assigned approximately weekly and will typically be due on Wednesdays at the beginning of class. No late homework will be accepted.

Participation (15%) will be assessed by your attendance and participation in class. To avoid losing participation points, let me know if you need to miss class as stated in the attendance section below. Missing class does not mean that you will lose participation points if you have cleared it with me in advance or have had to miss class for legitimate unforeseen circumstances.

There will be three **exams** (15% each) held from 7pm to 9pm. The exams are closed book, except that you may bring one two-sided page of notes to the first two exams and two two-sided pages of notes to the third exam. The exams are scheduled for **March 3rd, March 18th, and April 27th.**

The **final project** (20%) will consist of analyzing a real dataset using regression techniques learned in the course. This will be a group project with more information coming toward the middle of the semester.

Required Text:

David S. Moore, George P. McCabe, and Bruce A. Craig. (2009). *Introduction to the Practice of Statistics*, 6th edition. W.H. Freeman. ISBN 1429216239.

Readings that cover the topics of the next lecture will be announced in previous class. It is strongly recommended that you read the material *before* the lecture. A reading list is also distributed with this syllabus with a tentative reading schedule.

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Course Website:

A single course website will be maintained for this course. The lecture notes will generally be posted the night before in both full-sized color and 4-up greyscale. I recommend printing the greyscale slides, but *everything you need to know is NOT on these slides – they may have errors or omissions on them*. The ONLY way to avoid being a victim of the lecture-note typo or the lecture-note omission is to come to class!

Homework assignments, data sets, and any other relevant material will also be posted on this site. In addition, a link to bigwords.com is provided there for your convenience in finding a “reasonably” priced copy of the required text book.

<http://www.colby.edu/~lobrien/ma231.html>

Statistical Software:

We will be using Stata 10 to analyze real data. Much of modern statistics is done using statistical software and Stata is one of the more common packages. It was originally written for economists and has since spread into the health and social sciences fields. Stata has been keyserved for both Macs and PC's, and is also available in the Davis Computer Lab, the Mudd computer Lab, the Olin computer classroom, and the economics lab. You will also need a calculator that can at least do square roots, log, and exponential functions.

Policy on Collaboration:

You may discuss the homework problems with other students (and with me), but you must write your final answer yourself, in your own words. Solutions prepared “in committee” or by copying, paraphrasing, or summarizing someone else's work are not acceptable.

Policy on Attendance:

Statistics, like mathematics, generally builds from one topic to the next, making a missed class something to avoid. If you must miss a lecture and know ahead of time, then let me know and I will give you the topics to be covered that day. If this isn't possible, then get the material from a classmate or get in touch with me.

Comments and Suggestions:

I welcome your comments and suggestions. Please feel free to let me know of your opinions about any aspect of the course. If you prefer, you can drop an anonymous note in my mailbox or in the box outside my door. *Please do not hesitate to let me know how I can improve the course.*