

SYLLABUS

Math 1493

Applications of Modern Mathematics
10:30 TTh, 101 Classroom Building North
Spring 2011

Professor:

Bruce Crauder

e-mail: crauder@okstate.edu

Office hours: Mondays, Tuesdays, and Wednesdays from 1:30 pm— 2:30 pm, or as announced in class; e-mail lori.scanlan@okstate.edu, or call 744-7978 and make an appointment to see me.

Office phone: 405-744-7978

Office: Life Sciences East 201

Office Hours:

The purpose of office hours is to provide a time dedicated to helping you. You are welcome to utilize any office hours listed above. Just come by my office – you don't need to make an appointment for those times; for other times, please make an appointment and be sure to keep it. If you cannot keep a scheduled appointment, let Ms. Scanlan know at the above e-mail address.

MLRC General Tutoring:

The Math Learning Resource Center is on the 4th floor of the Classroom Building and is available to you on Mondays noon – 10 pm, Tuesdays noon—10 pm, Wednesdays noon – 6 pm, Thursdays noon – 10 pm, and Fridays noon – 5 pm.

MLRC Special Tutoring just for this class!

In addition to the general tutoring hours at the MLRC, there are also special tutoring hours just for Math 1493 students. These are Mondays from 6:30 pm—8:30 pm and Wednesdays from 7 pm—9 pm.

Text:

Quantitative Literacy: Thinking Between the Lines, 2010—2011 Preliminary Version, ISBN 1978-1-4292-7645-0 by Crauder, Evans, Johnson, and Noell, available at the OSU Bookstore for \$44 new, \$33 used. There will be one or two additional chapters provided to you later in the semester.

Calculator:

You will need a decent calculator that does scientific-type calculation---not just +, -, x, / but it should also be able to do ^ and preferably parentheses (and) also. Graphics calculators have very nice display screens, are easy to use, and are highly recommended. Calculators may be checked out (subject to availability) from the Math Department (MSCS 401) on Tuesday the 11th, from 1pm – 4pm; Wednesday the 12th, from 9 – 11:30 am and 1 – 4 pm; and thereafter from 8 am—noon and 1 – 5 pm.

Expectations:

You are expected to attend class prepared to learn. This includes more than simply attending class and bringing your book and calculator. I expect you to come to class having reviewed the material covered in the previous class, having read the text, and having questions related to the material or the homework. This preparation for class is essential so you can learn from the class and not just passively watch.

Classroom Etiquette:

The essence of etiquette is courtesy to your fellow students. Whether you are tweeting, texting, or just talking with your friend, you may be very distracting to others. Please turn off cellphones, iPhones, etc during class.

Content:

This course treats various applications of mathematics, particularly practical applications. It is designed to be a general education mathematics course for majors that do not require further mathematics. It is intended to be self contained; it neither assumes any math background nor is it preparatory for further mathematics courses. The text covers many interesting topics, more than we can cover in one semester, including the following:

- Critical thinking – Chapter 1
- Analysis of growth – Chapter 2
- Linear and exponential change: comparing growth rates – Chapter 3
- Personal finance – Chapter 4
- Introduction to Probability – Chapter 5
- Statistics – Chapter 6

Additional chapters not included in the text, some of which will be provided to you later:

- Graph theory – Chapter 7
- Voting and social choice – Chapter 8
- Geometry – Chapter 9

Tests:

There will be four exams each worth 100 points. The dates for the exams are:

Exam I:	Thursday, February 10th, during class
Exam II:	Thursday, March 10th, during class
Exam III:	Thursday, April 14th, during class
Final Exam:	Tuesday, May 3rd, during the final exam period (10:00 – 11:50 am)

Homework:

There will be homework assignments most weeks. Homework is normally due on Thursdays at the beginning of class and returned to you on Tuesdays in class, although this is subject to change. Homework will be announced in lecture, normally the previous week. There will be 11 homework assignments each worth 20 points. Only the highest 10 homework scores will count, so your total homework score will be out of a possible 200 points, that is, the same as two exams. Late homework may be marked but cannot count for your grade.

Attendance:

Attendance is very important in this class; indeed attendance is considered so important that I will add extra credit to your homework for that week based on attendance. If you miss class due to illness or other obligations, please contact me to learn what was covered in class, although I cannot give you extra credit for the missed class. In particular, your attendance, or lack of attendance, cannot lower your grade; it can only raise your grade.

Grading:

You have the possibility of earning up to 600 points (4 x 100 = 400 points for the exams and 10 x 20 = 200 points for the homework). The following grades are guaranteed as minima: 90% A, 80% B, 70% C, 60% D.

Personal Integrity:

In all matters of personal integrity, such as homework and tests, you are expected to ensure that work with your name on it is truly your own work. This includes homework done working with other students; your paper should ultimately be your own work. Cheating, of course, is not tolerated.

Additional Information:

Other important information can be found on the official OSU Syllabus Attachment for Spring 2011 at <http://osu.okstate.edu/acadaffr/aa/PDF%20Files/SYLATSP.pdf>