

Applications of Mathematics

Math 111

Spring 2005

<http://www.wsc.ma.edu/ecke/111/>

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Course Web Page: <http://www.wsc.ma.edu/ecke/111/>

Welcome! This course serves as an introduction to a range of “real-life” situations that naturally give rise to mathematical structures, processes and solutions. Topics may include fair division, route planning, apportionment, computer codes, etc.

Book: *Excursions in Modern Mathematics* by Tannenbaum (5th edition).
Prerequisites: High School Algebra II or MATH 103.

Class Meetings: MWF 8:15 – 9:05 AM (Wilson 425)

Attendance:

Participation is part of your grade, and attendance is mandatory. Missing class, late arrival to class, or leaving in the middle of class will result in a lower grade for attendance. No make-ups will be given for missed quizzes or exams, except in the event of a true, documented emergency where the instructor is notified **in advance**—if possible. In such a circumstance, it is the student’s responsibility to contact the instructor to make alternate arrangements.

Grading Scheme & Further Grading Basis:

%	95-100	90-94	87-89	84-86	80-83	77-79	74-76	70-73	67-69	60-66	60-0
	A	A-	B+	B	B-	C+	C	C-	D+	D	F

1. Homework and Quizzes:

Homework will be assigned on a daily basis and collected at the next class meeting. A selected number of the exercises will be graded. If you are absent, you are expected to find out the assignment and complete it prior to the due date. For full credit, you must show all your work, express yourself clearly and do the work neatly. Please staple your assignments and use paper with smooth edges. Late work will not be accepted.

Some weeks, a brief quiz may be given to test your understanding of the material. Your quiz or homework with the lowest score will be dropped.

2. Projects: You have to complete two individual projects by the end of the semester. These will have substantial writing components, and may include posters or presentations.

3. Journal: You are expected to get a spiral notebook, which serves as a journal in which you will document your progress and experiences in this course. It will contain **weekly** entries in which you will record your thoughts about mathematics, and your learning experience. This may be collected at any time during the semester, and will be handed in at the end of the term.

4. Class Participation: We will work on a lot of problems in class, mostly of a basic and conceptual nature. You are expected to participate in discussing these problems during a class period.

Note: Each of homework, quizzes, journal, and two projects have roughly equal weight. Poor attendance will result in a lowering of your grade.

Academic Honesty:

Anyone detected cheating on homework, quizzes or projects, whether aiding or being aided, will receive a **zero** for that assignment. I encourage students to seek assistance on homework assignments whenever there is a need: in my office, the tutoring center, or with fellow students. However, one should not simply copy somebody else's work. What you write on your paper should always reflect *your* understanding of the material. If you were helped in a substantial way, note your helper's name next to the assignment. (Ideas for this syllabus, for instance, are owed to my colleague Parag Metha, and J. Beineke of WNEC.)

Study suggestions:

Here are some suggestions for what you can do succeed (more details on the web site):

1. *Attend every class.*
2. *Read the book before coming to class.* You may not understand all the fine details on first reading. Every time you get stuck reading, formulate a question on that material, and ask it when we discuss that topic in class. Try to identify the general ideas and concepts presented.
3. *Go through your notes very carefully.* Be sure to understand all the ideas and examples discussed in class. If you get stuck, consult your notes, and come to talk to me if you don't understand some of the steps. Don't just memorize! Try to understand the reasoning.
4. *Start the homework assignments immediately and have them ready early.*
5. *Do extra problems.*
6. *Take advantage of office hours.* Office hours are time I set aside for you to come in with the questions you encountered trying to solve the problems. I can help you exactly where you are stuck. So do come with your questions!
7. *Use other available resources.* If you have questions outside of class and office hours, you can come by and check whether my office door is open. I am also very accessible by e-mail, and you should feel free to send me a note at any time.

Best wishes for a successful semester!