

MATH 107

Finite Mathematics

Fall 2011

Instructor: [Dr. Ewa Kubicka](#)

Office: NS 324 **Phone:** 852-6021

e-mail: ewa@louisville.edu

Office Hours: T,R 3:00pm – 3:50 pm; W by appointment

Lecture Time: TR 5:30pm to 6:45pm Place: JS 100

Recitation Sections:

Section	Instructor	Time	Place
107-75A	George Kistner	Th 7pm to 7:50 pm	NS108
107-75B	Max Leidner	Th 7pm to 7:50 pm	DO 202
107-75C	Kristopher Wease	Th 7pm to 7:50 pm	NS 212C

This course satisfies the quantitative reasoning general education requirement

Prerequisites: Math 102 or two years of high school algebra. Remember, prerequisite means that you have this material at your fingertips, there will be no review of it. If you did not receive a grade of B or higher in these courses, you probably need to review that material **BEFORE** this class.

Text: **FINITE MATHEMATICS** by Barney, Ziegler, and Byleen; 12th Edition.

Material: This is a first course in finite mathematics, taken mainly by students majoring in business, but also by students wishing to fulfill the quantitative reasoning (math) general education requirement. The material consists of: Systems of linear equations, Gauss-Jordan elimination, matrix operations (addition, multiplication, inverses, matrix equations), linear inequalities, set operations (union, intersection, complement), probability (conditional probability, Bayes rule. Binomial and normal distribution), Markov chains (regular chains, absorbing states); basically Chapters 4, part of 5, part of 7, 8, 9, and part of 11 in the current text.

Emphasis: You will learn how to perform mathematical operations on matrices, how to deal with linear equations and inequalities, as well as the basics of probability. Much of the course will be devoted to solving "Word Problems", that is given an applied, "real world" problem, you will learn how to formulate a mathematical model, then use the techniques mentioned above to obtain a numerical result and finally you will learn how to interpret this result in the context of the original problem. You are allowed to use a simple calculator (not a graphic one) on all quizzes and exams (but even correct answers without explanations will receive no credit).

Student Responsibilities:

1. **Read the book before class**
2. Write down questions
3. Attend **ALL** lectures
4. Be on time and stay for entire class
5. Check with other students if you had to miss a class
6. Do all the assigned homework
7. Read, prepare, solve problems for about 6 to 9 hours every week
8. If you have special needs (disability, participation in athletic activity, etc.) let me know immediately, to make arrangements.

Grading: Three tests (see schedule below); **at least twelve quizzes** (unannounced), only 10 best quizzes will count; comprehensive **final exam**. Grades for this course will be based upon total points earned from the quizzes, final exam and tests. Each of the three semester tests and the final exam is worth a maximum of 100 points, each quiz 10 points (for a total of 100 points. This gives a total of 500 points.

There is up to 20 extra credit points (for participation) given by the recitation instructor.

Out of 500 points,

480 is required for **A+**, **450** is required for **A**, **440** is required for **A-**,

430 is required for **B+**, **400** is required for **B**, **390** is required for **B-**,

380 is required for **C+**, **350** is required for **C**, **340** is required for **C-**,

330 is required for **D+**, **300** is required for **D**, and **290** is required for **D-**.

There will be NO make-up quizzes, if you missed a quiz with an approved excuse, you can drop it. No late work will be accepted. If you miss an exam with an approved excuse, arrangements for a make-up exam need to be made prior to missing the exam (only in the case of severe problems will a make-up be granted later).

Changes: Any changes to this syllabus will be announced in class and posted on Bb.

Day	Section	Homework problems: odd in given range
1. 8/23 (T)	Introd. Plus 4.1	3,7,11,15,17 - 25, 31, 51, 57 - 63
2. 8/25 (R)	4.2	7-19, 29, 51 - 63
3. 8/30 (T)	4.3	9,11,19,25, 27, 29,37, 39, 43,47,53,67-71
4. 9/01 (R)	4.4	1-13,31 - 47, 55 - 65
5. 9/06 (T)	4.5	7, 15, 29, 37, 39, 43, 45, 55, 71
6. 9/08 (R)	4.6	3, 5-21, 23-29, 55A
7. 9/13 (T)	4.7	1-5, 13, 17,19, 27 - 31
8. 9/15 (R)	5.1 & 5.2	1-25,33,37,41,43,45,47,51 1-7,13-25,35,37
9. 9/20 (T)	Review	
10. 9/22 (R)	Review	
9/22 (R) recitation	TEST 1	
11. 9/27 (T)	5.3	5,9-23,33-45
12. 9/29(R)	7.2 & 7.3	3-53,59, 81-87 5-9,13-31,35-41, 49-59
13. 10/04 (T)	7.4	3-41, 51-55, 61-69
14. 10/06 (R)	8.1	3-33, 37-59, 75-81, 91, 95

10/11 (T) Fall Break		
15. 10/13 (R) (<u>last day to withdraw</u>)	8.2	1-5, 11-15, 19-33, 41-49, 53-59, 75, 77
16. 10/18 (T)	Review	
17. 10/20 (R)	Review	
10/20 (R) recitation	TEST 2	
18. 10/25 (T)	8.3	8.3: 1-23, 29-39, 61-65
19. 10/27 (R)	8.4	1-31, 37-55
20. 11/01(T)	8.5	1-11, 15-23, 27-31, 35-41
21. 11/03 (R)	Mean & Variance	
22. 11/08 (T)	11.5	1,5,11,17,23,31, 57 - 63
23. 11/10(R)	11.5	1,5,11,17,23,31, 57 - 63
24. 11/15 (T)	9.1	1,5,11,15,17,27,31,37,39,43,57,71-75
25. 11/17 (R)	9.2	7-21,33,43,47
26. 11/22 (T)	9.3	5-17, 23, 25-31, 35-39
11/24 (R) Thanksgiving Holiday		
27. 11/29 (T)	Review	
28. 12/01 (R)	Review	
12/01 (R) recitation	TEST 3	
12/08 (R) 5:30-8:00	FINAL EXAM	Room JS 100