

Fall 2005

MTH U115 - APPLICATIONS IN ALGEBRA
COURSE POLICIES & SYLLABUS

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Office Hours: Mon & Thu, 9:15 - 10:15 and Wed, 11:40 - 12:40 in 535 NI or by appointment.

Time and Place: Mon - Wed - Thu, 8:00 - 9:05am in 31 SL (Snell Library)

Text: Finite Mathematics & Its Applications by Lial, Greenwell & Ritchey, 8th edition.

You may pick up a class packet at Gnomon Copy at 325 Huntington Ave.

General course objective: To introduce students to interesting and useful applications of mathematics while improving their basic skills, problem solving capabilities and understanding of the power of abstraction.

COURSE POLICIES:

1. There will be a weekly quiz to keep students up to date on the material. If you miss a quiz there is no make-up. The best 8 quizzes will be used to determine your quiz average.
2. There will be a one-hour midterm and a two-hour, cumulative, departmental final exam. No student will be granted a request for a special final exam unless it is due to a registrar created conflict. If you miss either of these exams you will receive a grade of zero, as there will be no make-up exams given. A plane ticket home will not excuse you from the final exam, so please plan accordingly. Our final exam is scheduled for Thursday, December 15 at 10:30 AM.
3. Homework will be assigned at each class. Homework will be used to determine a student's grade if s/he is on the borderline of two grades.
4. Your grade in the course will be determined as follows:
Quizzes: 30%, Midterm 30%, and Final Exam: 40%
THERE IS NO SCALING OF QUIZ OR EXAM GRADES IN THIS COURSE.
You will be graded to the following scales:

| COLLEGE OF ARTS AND SCIENCES** | | ALL OTHER COLLEGES | |
|--------------------------------|-------|--------------------|-------|
| Final Avg | Grade | Final Avg | Grade |
| 94 - 100 | A | 94 - 100 | A |
| 90 - 93 | A- | 90 - 93 | A- |
| 87 - 89 | B+ | 87 - 89 | B+ |
| 83 - 86 | B | 83 - 86 | B |
| 80 - 82 | B- | 80 - 82 | B- |
| 77 - 79 | C+ | 77 - 79 | C+ |
| 73 - 76 | C | 73 - 76 | C |
| 0 - 72 | U | 70 - 72 | C- |
| | | 67 - 69 | D+ |
| | | 63 - 66 | D |
| | | 60 - 62 | D- |
| | | 0 - 59 | F |

5. **You must receive a grade of C or higher in this course to demonstrate proficiency in mathematics. A final grade lower than 73 will receive a U (unsatisfactory) and it will be necessary for you to repeat the course and receive a C or better in order to graduate.

6. A calculator is required, preferably a TI-83. The midterm and final exams will be two parts - a calculator section and a non-calculator section.
7. It is the student's responsibility to be aware of what happens in the classroom, including announcements of possible exam (or quiz) date changes, material that will be covered and changes to the syllabus, which may occur. If classes are cancelled for any reason, scheduled quizzes or exams will be given the following class. Announcements will also be posted on the class page of www.coursecompass.com.
8. If you have a concern about this course that cannot be resolved by speaking with your instructor then please contact the course coordinator, Joan Campbell, 543 NI, ext. 4882, j.campbell@neu.edu or Vice-Chair of the Department of Mathematics, Professor Stanley Eigen, 527 Lake Hall, ext. 5647, eigen@neu.edu.
9. You may receive any extra help in this course at the Math Tutoring Center in 540B NI. The tutoring center offers free tutoring on an individual basis. You just need to sign up for an appointment. Please seek help as soon as you experience any difficulty, do not wait until just before an exam.

The hours for the Tutoring Center in 540B NI are:
Monday, Tuesday & Wednesday 10:00 AM - 8:00 PM
Thursday 10:00 AM - 6:00 PM
Friday 10:00 AM - 2:00 PM

In addition, tutoring is available in Snell Library. Go to the Peer Tutoring Center on the 2nd floor or call 373-2150 to schedule a tutor.

10. Northeastern University is committed to the principles of intellectual honesty and integrity. All members of the Northeastern community are expected to maintain complete honesty in all academic work, presenting only that which is their own work in tests and assignments. If you have any questions regarding proper attribution of the work of others, please contact me prior to submitting the work for evaluation.
11. I encourage students with disabilities, including "invisible" disabilities like chronic diseases or learning disabilities, to discuss with me after class or during my office hours appropriate accommodations which might be helpful for them. Your disability must be verifiable; on campus, the Disabilities Resource Center (20 Dodge Hall, ext. 2675) can provide you with information and other assistance.

MTH U115 Topics — Fall 2005

| Section | Topic |
|----------------|--|
| 2.3 | Addition & Subtraction of Matrices |
| 2.4 | Matrix Multiplication |
| 2.4 | Organizing & Using Data in Matrices |
| 2.5 | Matrix Inverses (2x2) |
| 2.5 | Using Matrix Inverses to Solve Systems of Equations |
| | Cryptography |
| 7.1 | Sets |
| 7.2 | Venn Diagrams |
| 7.3 | Introduction to Probability |
| 7.4 | Basic Concepts of Probability |
| 7.5 | Conditional Probability |
| 8.1 | Multiplication Principle & Permutations |
| 8.2 | Combinations |
| 8.3 | Probability Applications of Counting Principles |
| 10.1 | Markov Chains |
| | Graphing Linear Equations |
| | Point of Intersection (Elimination & Substitution Methods) |
| 3.1 | Systems of Inequalities |
| 3.2 | Solving Linear Programming Problems |
| 3.3 | Applications of Linear Programming |

Important Dates

Monday 10/10 Columbus Day - No School

The tentative date for the midterm exam is October 20.

Wednesday 11/23 Classes end at 11:35 AM

Thursday 11/24-11/27 Thanksgiving Recess - No School

Wednesday 12/7 Review for Final Examination

Thursday 12/8 Reading Day

Thursday 12/15 Final Exam 10:30 AM - 12:30 PM