Course Syllabus

Room:	MF	FITZ 302
	W	IRC 120AB
Time:	MWF	12:00 - 12:50 p.m.
Office:	Fitzelle Hall 230	
Phones:	Office:	(607) 436-3658
	Home:	(518) 456-4263
	Department Office:	(607) 436-3708
E-Mail:	goutzicj@oneonta.edu	
Web Site:	http://www.oneonta.edu/~GoutziCJ	
Office Hours:	**M 10:00 a.m.**	**W 11:00 a.m.**
	F 2:00 p.m.	

Textbooks: *Title_1:* Introduction to Linear Algebra;   *Edition:* Second;   *Author:* Gilbert Strang;   *Publisher:* Wellesley - Cambridge Press;   *Date:* 1998
Title_2: ATLAST Computer Exercises for Linear Algebra;   *Edition:* Second;   *Authors:* Steven Leon, Eugene Herman, Richard Faulkenberry;   *Publisher:* Prentice - Hall; *Date:* 1996

Software: MATLAB, Release 11 (version 5.3)

College Catalog Description:

MATH 323 / 324 Linear Algebra and Matrix Theory I and II. Finite dimensional vector spaces; linear transformations and their matrix representations; eigenvalues; rational and Jordan canonical forms; inner product spaces; quadratic and bilinear forms; applications. *Prerequisite:* MATH 174.

Course Goals and Objectives:

Math 323 provides an introduction to linear algebra and matrix theory. The course has two primary goals: (1) to present a reasonably complete, mathematically honest introduction to the basic concepts of linear algebra and matrix theory; (2) to give students an understanding of the overall logical structure of the subject and of the way linear algebra helps to explain phenomena and solve problems in many areas of mathematics and its applications.

To achieve these goals, students will, upon completion of homework assignments, quizzes, and exams:
1. use a problem-solving approach to investigate and understand the mathematical content;
2. demonstrate an understanding of the principles and techniques of applying mathematics to other disciplines and to real world problems;
3. understand and apply numerical computations and extend them to algebraic expressions;
4. use mathematical modeling to solve problems from fields such as the natural sciences, social sciences, business, and engineering;
5. use computer software to explore and solve problems involving linear algebra.

Course content:

Systems of linear equations; matrix inverses; LU factorization; linear independence; rank; vector spaces and subspaces; orthogonalization; least squares approximation; eigenvalues and eigenvectors; diagonalization; linear transformations; basis transformation.

Methods of Evaluation and Grading Policies:

There will be three tests and approximately four quizzes during the course of the semester. Tests and quizzes will be announced on my Web site at least four days in advance. A comprehensive final exam

is scheduled for Wednesday December 15, 11:00 a.m. - 1:30 p.m. in IRC 120AB. Homework will be assigned daily and is due at the beginning of the next class meeting. Homework and quizzes may be completed by groups of at most three students; tests and final exams are an individual responsibility. All submitted homework should include a coversheet indicating the course, the date, the assignment number and the students involved. Homework assignments, including quiz and test announcements, and coversheets are published on my Web site and updated daily. Homework grades depend on the percentage of assignments submitted.

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00 -  50%              no homework credit
51 -  80%             half homework credit
81 - 100%             full homework credit
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Course grades are computed according to the following:

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Tests:          40%    90 - 100 A      77 - 80 B-      64 - 67 D+
Quizzes:        20%    87 -  90 A-     74 - 77 C+      60 - 64 D
Final Exam:     20%    84 -  87 B+     70 - 74 C       57 - 60 D-
Homework:       20%    80 -  84 B      67 - 60 C-       0 - 57 E
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Attendance Policy:
It is the student's obligation to take the tests and the final exam at the scheduled times and allow for on time submitting of homework assignments.

Make-up Test and Late Assignment Policy:
Make-ups will not be given.   If a student misses a test, her/his grade for that test will be considered equal to her/his grade on the final exam. Late homework cannot be accepted.