MTH121 Fall 2013 (draft syllabus)

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Office Hours: 10:00-11:30 am TWRF and by appointment
Class: 3:00-3:50 pm TWRF, 018 Manchester Hall
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Course Description: Linear Algebra I (3h) Vectors and vector spaces, linear transformations and matrices, determinants, eigenvalues and eigenvectors.

Text: Linear Algebra and its applications, David C. Lay, 4th edition

Content:

Linear systems and Matrix algebra (Chapters One and Two)
Determinants (Chapter Three)
Vector space R^n: the n dimensional Euclidean space (Chapter Four)
Eigenvalues and Eigenvectors (Chapter Five)
Linear transformations and their matrix representation (Chapters One and Five and lecture notes)
Other selected topics from Chapters six and seven and lecture notes.

Other Reference books: Information on online free textbooks will be posted on Sakai.

Examinations : Two 50-minutes midterm exams will be given during the semester and the dates will be announced at least one week before the exams. The first exam is normally given a couple of days before the deadline of dropping a course. The second exam will be given shortly after the spring break. A 3-hour comprehensive final examination will be given at the end of the semester.

Quizzes and Homework Assignments: Several 5-10 minute quizzes will be given throughout the semester. I will also hand out homework assignments for topics we cover in class. You are required to solve the problems in the assignments and write up the solutions with necessary details. Homework assignments need to be turned in on time. Selected problems will be read and a score will be given for each assignment.

Grades : Letter grades will be assigned based on the total points a student earns during the semester: The cut-off for each grade is *approximately* as follows: A: Excellent > 90 %, B: Good > 80%, C: Above Average > 70 %, D: Average > 60 %.

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Midterm One: 100 pts.
Midterm Two: 100 pts.
Homework, course projects, and Attendance: 75 pts.
Quizzes: 50 pts.
Final Comprehensive Examination: 175 pts
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Use of calculators and Thinkpads:

We will have special classes to discuss the use of Maple on Thinkpad and assign problems that require the use of it. It is OK to use a calculator to verify the results you have obtained in your assignments. However, you need to learn many techniques without using a calculator.
Use of calculators or laptop computers etc. are not allowed in quizzes or exams.

Attendance
Attendance is required. It is always recommended that you let me know preferably beforehand if you have to miss a class. Makeup exams and quizzes will be provided if you cannot come to the class because of illnesses, emergencies, and University duties etc. For reasons other than these, there will be a 20% penalty on the scores of makeup exams and quizzes.

Classroom behavior
To create an effective learning environment, cell phones must be turned off during classes. Texting, online chatting, internet surfing, checking emails etc. are not allowed during classes. Activities such as eating food, drinking soda, and typing up your papers for other classes are strongly discouraged.

Expectations
Preview the textbook before classes; read and make an effort to understand the textbook after classes.
Go through examples in the textbook thoroughly.
Turn in quizzes and assignments in time.
Try simple problems first, then more complicated ones.
Do more problems than the assigned (not required to be turned in).
Come to TA's help sessions and my office hours when you have difficulties.
Math Center is available for one-on-one tutoring – you just need to sign up.

More information will be made available once the classes start.