ASE 380P ANALYTICAL METHODS I
EM386K MATHEMATICAL METHODS IN APPLIED MECHANIS I
Fall 2011, # 13795/ # 14220 , TTh 11:00 - 12:30, ENS 109

Text: M. D. Greenberg, *Foundations of Applied Mathematics*, Prentice-Hall, Inc., Englewood Cliffs, New Jersey 1978.

TA: Nathan V. Roberts, E-mail: nate@nateroberts.com
Discussion session: Tue, ACE 6.304, 5:00-7:00 pm.
Office hours: Thu, 1:00-3:00

Week	**Topic**	**Chapter**
Aug 24 -Aug 26	Elementary logic and set theory	
Aug 29 - Sep 2	Functions and sequences, limits	1
Sep 6 -Sep 9	Infinite series	2
Sep 12 -Sep 16	Singular integrals	3
Sep 19 -Sep 23	Vector spaces	17
Sep 26 -Oct 30	Linear operators	18
Oct 3 -Oct 7	Solvability of linear equations	19
Oct 10 -Oct 14	Metric spaces, elementary topology	4
Oct 17 -Oct 21	Fourier series	5
Oct 24 -Oct 28	Fourier and Laplace transforms	6
Oct 31 -Nov 4	Eigenvalue problems	20
Nov 7 -Nov 11	Elementary ODE techniques	21
Nov 14 -Nov 18	Systems of linear ODE's	22
Nov 21 -Nov 25	Stability and the phase plane	23
Nov 28 -Dec 2	Review	

Discussion Session: ACES 6.304, Time TBD.

Homework: Homework assignments will be made in class. The problems assigned in the class will not be collected. Instead, we will begin each discussion session with a quizz for which one of the homework problems will be selected.

Exams: There will be two (closed book) exams held in ACES 6.304, during evening hours (5:00-8:00 p.m.) according to the following schedule:

- Exam1 (through Section 5) Mon.,Oct 17,
- Exam2 (through Section 22) Mon.,Nov 28,

Final Exam: Comprehensive, mandatory, closed book, on Tue, Dec 13, 9:00-noon at official scheduled place.

Grading: Is based upon the quizzes, exam scores and the final exam, with these items weighted as follows:

Quizzes	- 20 %
Exams	- 25,25 %
Final	- 30 %

Instructor: Dr. Leszek Demkowicz, ACES 6.326, Office hours: Wed, Fri, noon-1:00 PM