

ASE 380P ANALYTICAL METHODS I
EM386K MATHEMATICAL METHODS IN APPLIED MECHANIS I
Fall 09, # 13760/ # 14230 , MWF 11:00 - noon, ETC 2.114

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

Week	Topic	Chapter
Aug 26 -Aug 28	Elementary logic and set theory	
Aug 31 - Sep 4	Functions and sequences, limits	1
Sep 9 -Sep 11	Infinite series	2
Sep 14 -Sep 18	Singular integrals	3
Sep 21 -Sep 25	Metric spaces, elementary topology	4
Sep 28 -Oct 2	Fourier series	5
Oct 5 -Oct 9	Fourier and Laplace transforms	6
Oct 12 -Oct 16	Vector spaces	17
Oct 19 -Oct 23	Linear operators	18
Oct 26 -Oct 30	Solvability of linear equations	19
Nov 2 -Nov 6	Eigenvalue problems	20
Nov 9 -Nov 13	Elementary ODE techniques	21
Nov 16 -Nov 20	Systems of linear ODE's	22
Nov 23 -Nov 27	The Phase plane	23
Nov 30 -Dec 4	Stability	23

Discussion Session: ACES 6.304, Tue, 6:30 - 8:00 P.

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 quiz 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 19,
- Exam2 (through Section 22) Mon., Nov 30,

Final Exam: Comprehensive, mandatory, closed book, on Wed, Dec 9, 7:00-10:00 pm 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: Mon., noon-1:00 p.m.