



**MAS 210: Mathematics III Section 5 – Lecturer: Dr. Ruben N. Mera**

Office: 402-2, Ext. # 3317  
 Semester 1 2007

Email: rmera@siit.tu.ac.th

Textbook:  
 Wiley & Sons, 2000

Kreyszig, Erwin, *Advanced Engineering Mathematics*, 9<sup>th</sup> Ed., John

Additional references:

Anton, H. & Rorres, C, *Elementary Linear Algebra* Wiley.  
 Spiegel, M. *Complex Variables*; McGraw Hill, Schaum series

Office Hours:

M. 13:30-17:0; Th. 8:00-12:30;

**Grade**

Midterm Exam	45%	<i>Only the best two of three quizzes count toward the grade. No make-up on quizzes, whatever reason. No exceptions</i>
Final Exam	45%	
Quizzes (3)	10%	

**Syllabus:**

Tentative Schedule of Classes .

Week	Contents
Linear Algebra	
1	Systems of Linear Equations, Gauss Elimination, Reduced Row-Echelon Matrices
2	Homogeneous Systems, Matrices, Operations
3	Inverse, Determinants. Application to Solving Systems
4	Vector Spaces, Dimension, Basis, Linear Independence
5	Eigenvalues and Eigenvectors, Solving Polynomial Equations
<b>Midterm Exam: July 19 (Thursday) 13:30 – 16:30</b>	
Second Part: Complex Analysis	
6	Complex Numbers, Complex Plane, Differentiation, Analytic Functions
7	Cauchy-Riemann Equations, Conformal Mapping
8	Exponential, Trigonometric, Logarithmic Functions, Complex Integration
9	Cauchy's Integral Formula
10	Residue Integration
<b>Final Exam: October 11 (Thursday) 13:30 – 16:30</b>	

On the website [http://www.geocities.com/dr\\_ruben\\_siit](http://www.geocities.com/dr_ruben_siit) you can find additional material for this course, including class notes, solved problems, homework, and exams.

The set of class notes corresponding to Linear Algebra is available at the copy center.