Course Syllabus

Term: Fall 2007
Course Title: Advanced Engineering Mathematics

Instructor:
Dr. Ming-Sui Lee
Department of Computer Science and Information Engineering
CSIE Building, Room #520
National Taiwan University
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Lecture: 9:10 a.m. ~ 12:10 p.m. Thursday

Website: www.csie.ntu.edu.tw/~aem

Instructor Office Hours:
10:00 a.m. ~ 12:00 p.m., Wednesday or by appointment
(For homework-related problems, please go directly to the TA.)

Teaching Assistant:
劉鴻鈞 aem@csie.ntu.edu.tw
Office Hours: 1:20 p.m. ~ 2:10 p.m., Tuesday and Thursday

Textbook:
Dennis G. Zill and Michael R. Cullen: Differential Equations with Boundary-Value Problems.

Reference Books:
3. L. Ahlfors: Complex Analysis.

Homework and Final Project:
There will be several written assignments and one final project. No late homework or project will be accepted.

Grading Policy:
1. Participation: 10%
2. Homework: 30%
3. Midterm Exam (Nov. 8): 30%
4. Term Project: 30%
Tentative Schedule:
I. Introduction
II. First-Order Differential Equations.
III. Higher-Order Differential Equations.
IV. Laplace Transform.
V. Series Solutions of Linear Equations.
VI. Systems of Differential Equations.
VII. Fourier Series and Boundary-Value Problems.
VIII. Numerical Analysis.
IX. Nonlinear Differential Equations and Stability.
X. Complex Analysis.