MATH 414 — SPRING 2009

Modern Applied Mathematics II

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Office Hours:	TR 4.15–4.45 and 5.15–5.45 (or by appointment). There will also (usually) be office hours on Fridays but with times changing weekly. Check the webpage for details.
Webpage:	http://math.gmu.edu/∼harbir/m414/

MATLAB links:	http://math.gmu.edu/html/help/matlab.html
OCTAVE links:	http://www.octave.org

Textbook:	Gilbert Strang, *Introduction to Applied Mathematics*, Wellesley-Cambridge Press, 1986.

The Course:	Continuation of MATH 413, which involves synthesis of pure mathematics and computational mathematics. Fourier analysis and its role in applied mathematics developed (differential equations and approximations). Discrete aspects emphasized in computational models.

The course will be graded on the basis of a midterm exam (March 17th), a (cumulative) final exam (May 7th although that may change due to Inauguration Day) and a computational project that will be set during the term (date to be announced). The midterm and the project will each be worth 25%. The final exam will be worth 50% of the marks. No outside materials will be allowed during the exams and no collaboration will be allowed on the projects.

In addition there will be homework problems set at the end of each class. These should not be handed in but you are STRONGLY advised to study them and write out your solutions properly. You are also encouraged to discuss these problems amongst yourselves and make use of the office hours. I will go through many of the homework problems in the following class and you will not benefit from this if you have not made a serious attempt at them beforehand.