ENCH620: METHODS OF ENGINEERING ANALYSIS, Fall 2003

Instructor:

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Teaching Assistant:

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Course Description:

This course introduces graduate students of chemical engineering to those areas of advanced mathematics which are currently most important in the engineering science. In particular, the course includes (the chapters' numbers are from Kreyszing):

(a) Linear Algebra (Ch. 6, 7)
(b) Ordinary Differential Equations (Ch. 1-5)
(c) Vector Calculus (Ch. 8, 9)
(d) Partial Differential Equations (Ch. 10, 11)
(e) Numerical Methods (Ch. 17-19)
(f) Probability and Statistics (Ch. 22, 23)

Recommended Texts:

Advanced Engineering Mathematics, by Erwin Kreyszig, John Wiley & Sons, 8th edition (1999).
Advanced Engineering Mathematics, by Peter V. O'Neil, Brooks Cole, 5th edition (2003).

Both books are on reserve in the Engineering Library. Note that the library has also an array of books with similar title; all of them may be used for further study.

Grading Policy:

Homework and Class Participation	20 %
Two mid-term exams of equal weight	$2 \times 20 = 40$ %
Final exam	40 %

Homework Assignments:

Homework problems will be assigned on a regular basis.
The homework must be submitted at the beginning of the class the date it is due.
The problems and the solutions will be posted on the course web page.

Academic Honesty:

Plagiarism and academic dishonesty will not be tolerated, and suspected incidence will be referred to the Student Honor Council of the Judiciary Programs. For more information see:
http://www.testudo.umd.edu/soc/dishonesty.html & http://www.studenthonorcouncil.umd.edu