School of Mathematics

Course 2E2 — SF Engineering Pure Mathematics 1999-2000
(SF Engineering & MSISS)

Lecturer: Dr. Pascal Tran-Ngoc-Bich

Requirements/prerequisites: 1E1

Duration: 22 weeks excluding examining period.

Number of lectures per week: 3.5

Assessment:

End-of-year Examination: One 3 hour examination.

Description:
Laplace transforms and Z-transform. The continues the work on linear constant coefficient differential and difference equations begun in 1E2. It allows a more diverse variety of input functions.
Systems of Differential Equations Series Solutions of Differential Equations and Special Functions.
Vector Calculus - Differential and Integral.
Optimisation.
Intrduction to Partial Differential Equations.

OBJECTIVES

To give the participants an understanding of how to solve the differential equations that arise in engineering, and to promote an ability among the participants to apply this knowledge in new situations.

BOOKS

Kreyszig, *Advanced Engineering Mathematics*

November 9, 1999