School of Mathematics

Course 231 — Methods 2 2003-04

(SF Mathematics, SF Theoretical Physics, optional JS & SS Two-subject Moderatorship)

Lecturer: C. Ford

Requirements/prerequisites: 131

Duration: 24 weeks

Number of lectures per week: 2+1 problems class

Assessment:

End-of-year Examination: One three hour examination

Description:
Vector analysis
Theorems of Gauss and Stokes
Fourier series and Fourier integrals
Ordinary Differential Equations
Hermite polynomials, Bessel Functions
Sturm-Liouville theory
Partial Differential Equations
Boundary value problems
Harmonic functions
Separation of variables in cartesian and other coordinates.

Objectives:
Introduction to basic techniques of applied mathematics, with applications.

June 28, 2004