

OFFICIAL SYLLABUS

MATH 565 – ADVANCED NUMERICAL ANALYSIS

Adopted: Fall 2005
(Committee: Drs. Lu, Pelekanos)

Catalog description. Rigorous treatment of topics in numerical analysis including function approximation, numerical solutions to ordinary and partial differential equations. Convergence and stability of finite difference methods. Prerequisites: MATH 321; 350; 465; 466.

Textbooks

1. *Numerical Analysis, Mathematics of Scientific Computing*, 3rd Ed., by E. Kincaid and W. Cheney, Brooks/Cole Pub.,
2. *Numerical Analysis* 8th ED. by Burden and Forres.

Sections to be covered: 6.1, 6.2, 6.4, 6.7, 6.8, 6.9, 6.12, 6.13, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.8, 12.4.(text no. 2).