Math 6318.001, Spring 2015, Tentative Schedule:

Date	Section/Topic
Tu 1/13/15	First Day Handout; Introduction to PDE's, Importance of Numerical Solutions, Taylor series review
Th 1/15/15	Matlab Demo
Tu 1/20/15	Taylor series methods for solving ODE's
Th 1/22/15	Runge-Kutta methods for solving ODE's
Tu 1/27/15	Multistep methods for solving ODE's
Th 1/29/15	Multistep methods for solving ODE's
Tu 2/3/15	Finite Difference Methods for Hyperbolic Equations
Th 2/5/15	Finite Difference Methods for Hyperbolic Equations
Tu 2/10/15	Finite Difference Methods for Hyperbolic Equations
Th 2/12/15	Order of Accuracy of FD Schemes
Tu 2/17/15	Stability of FD Schemes
Th 2/19/15	Dissipation and Dispersion of FD Schemes
Tu 2/24/15	Finite Difference Methods for Parabolic Equations
Th 2/26/15	Finite Difference Methods for Parabolic Equations
Tu 3/3/15	Finite Difference Methods for Parabolic Equations
Th 3/5/15	Finite Element Methods for Elliptic Equations
Tu 3/10/15	Midterm Exam
Th 3/12/15	Finite Element Methods for Elliptic Equations

Date	Section/Topic
Tu 3/17/15	Spring Break
Th 3/19/15	Spring Break
Tu 3/24/15	Finite Element Methods for Elliptic Equations
Th 3/26/15	Finite Element Methods for Elliptic Equations
Tu 3/31/15	FEM for Elliptic Equations (Inhomogeneous Dirichlet BC's)
Th 4/2/15	FEM for Elliptic Equations (quadrature)
Tu 4/7/15	FEM for Elliptic Equations (Inhomogeneous Neumann BC's)
Th 4/9/15	FEM for Elliptic Equations (2D)
Tu 4/14/15	Order of Convergence of FE Methods
Th 4/16/15	Weighted Residual Method
Tu 4/21/15	Multigrid Methods
Th 4/23/15	Multigrid Methods
Tu 4/28/15	Catch Up Day
Th 4/30/15	Review
TBD	FINAL EXAM