

Math 490–3/710–4, Fall 2009, Tentative Schedule:

Date	Section/Topic
Tu 9/1/09	First Day Handout; Introduction to PDE's, Importance of Numerical Solutions
Th 9/3/09	Definitions, Characteristics, and Boundary Conditions
Tu 9/8/09	Characteristics and Boundary Conditions
Th 9/10/09	Characteristics and BC's
Tu 9/15/09	Characteristics and BC's
Th 9/17/09	Finite Difference Methods for Hyperbolic Equations
Tu 9/22/09	Finite Difference Methods for Hyperbolic Equations
Th 9/24/09	Finite Difference Methods for Hyperbolic Equations
Tu 9/29/09	Order of Accuracy of FD Schemes
Th 10/1/09	Stability of FD Schemes
Tu 10/6/09	Dissipation and Dispersion of FD Schemes
Th 10/8/09	Finite Difference Methods for Parabolic Equations
Tu 10/13/09	Finite Difference Methods for Parabolic Equations
Th 10/15/09	Finite Difference Methods for Parabolic Equations
Tu 10/20/09	Midterm Exam
Th 10/22/09	Finite Element Methods for Elliptic Equations
Tu 10/27/09	Finite Element Methods for Elliptic Equations
Th 10/29/09	Finite Element Methods for Elliptic Equations

Date	Section/Topic
Tu 11/3/09	Finite Element Methods for Elliptic Equations
Th 11/5/09	Finite Element Methods for Elliptic Equations
Tu 11/10/09	Finite Element Methods for Elliptic Equations
Th 11/12/09	Finite Element Methods for Elliptic Equations
Tu 11/17/09	Order of Convergence of FE Methods
Th 11/19/09	Weighted Residual Method
Tu 11/24/09	Multigrid Methods
Th 11/26/09	THANKSGIVING
Tu 12/1/09	Multigrid Methods
Th 12/3/09	Project Presentations
Tu 12/8/09	Project Presentations
Th 12/10/09	Review
Tu 12/22/09	FINAL EXAM