

MA776 - Partial Differential Equations - Fall 2015

Contact Info

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Class details:	1:30-3:30 TR, MCS 144

Grading

Graded Item	Weighting	Date
Homework	100%	Assigned every 1-2 weeks

Textbook and topics covered

The main book we will use is “Partial differential equations,” by L. C. Evans. Another good book that covers much of the same material is “An introduction to partial differential equations,” by M. Renardy and R. Rogers.

The basic plan for the course is to cover Chapters 1-2, parts of Chapter 3, most of Chapter 5, and parts of Chapters 6-7 in the book by Evans. Topics will include (time-permitting) basic introductory examples; explicit representation of solutions for the transport, Laplace, heat, and wave equations; the method of characteristics; an introduction to conservation laws; Sobolev spaces; and some theory for linear elliptic, parabolic, and hyperbolic equations.

Homework

Homework assignments will be given approximately every 1-2 weeks. You are encouraged to work together on these, but please make sure that you write up the solutions on your own.