

Math 553: Partial Differential Equations

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Course Info

Online classes: Zoom meetings on MWF 1:00 pm - 1:50 pm.

Office Hours: by appointment.

Learning manage system: Moodle.

Course Description

We will use the Evans' PDEs book throughout the semester. Particularly, we will cover the first four chapters of the book to understand:

- i. some principal theoretical issues concerning the solving of PDEs;
- ii. four fundamental linear PDEs for which various explicit formulas for solutions are available;
- iii. methods used in solving general nonlinear first-order PDEs;
- iv. some other useful techniques used in finding explicit solutions of certain PDEs.

Required Materials

- Partial Differential Equations, 2nd edition, by Lawrence C. Evans

Prerequisites

Undergraduate knowledge in linear algebra, multi-variable calculus, and ordinary/ partial differential equations.

Background in real analysis & functional analysis is not required but would help.

Assignments and Exams

There will be weekly homework assignments, one midterm exam (in the eighth week), and one final exam, which count 20%, 35%, and 45% in the final grade, respectively.