

MATH 131P: Partial Differential Equations
Winter 2019

Course Instructor: Yiran Wang

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Lecture: M, W, F 10:30am–11:20am at 380-380F.

Prerequisite: Math 53 or equivalent.

Course Description: An introduction to PDE; particular suitable for non-Math majors. Topics include physical examples of PDEs, method of characteristics, d'Alembert's formulation, heat kernels, Duhamel's principle, separation of variables, Fourier series, Harmonic functions, Bessel functions.

Textbook: *Partial Differential Equations for Scientists and Engineers* by Stanley J. Farlow.

Course website: <http://web.stanford.edu/~yrw/Math131p/math131p.html>
Course announcements, homework, solutions will be posted on the course website.

Grading: Your grade will be based on the combined scores from one midterm, one final, and weekly homework. Grade records will be posted on Canvas. The distribution of weights are

Homework:	25%
Midterm:	30%
Final:	45%
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Total:	100%

Homework: Homework will be posted on the course webpage and be due on the in dedicated day (usually on Wednesday). No late homework will be accepted. If you can't make it to lecture you may put your homework in my mailbox before the end of lecture; be sure to send me an email so I will look for it. The lowest score will be dropped to accommodate exceptional situations such as a serious illness.

You are allowed to discuss the homework with others in the class, but you must write up your homework solution by yourself. You should understand the solution, and be able to reproduce it yourself. This ensures that, apart from satisfying a requirement for this class, you can solve the similar problems that are likely to arise on the exams.

Exams: The Midterm will be on Monday, Feb. 11th, in class. The Final Exam is scheduled on Thursday March 21st from 8:30am to 11:30am. The location will be announced later.