

Math 523, Partial Differential Equations

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Office Hours: TTh 1:30–2:30

Course webpage: <http://www.math.purdue.edu/~svitlana/PDE-S11.html>

Required Text:

Lawrence C. Evans, *Partial differential equations*, Volume 19 of Graduate studies in mathematics, Edition 2, illustrated, Publisher: AMS Bookstore, 2010. – *This is the main textbook for the course.*

F. John, *Partial Differential Equations*, Publisher: Springer; 4th edition, December 9, 1981. – *This is the secondary textbook: some selected sections and some selected problems will be from this text.*

David Gilbarg, Neil S. Trudinger, *Elliptic partial differential equations of second order*, Classics in mathematics, Edition 2, reprint, illustrated, revised, Publisher: Springer, 2001. – *This is advanced reading for students who would like to pursue the subject further. I will point out accessible and relevant sections from here from time to time, but will not require anything from this text.*

Schedule: TTh 12:00–1:15 at REC 307

Grading: Homework 25%
Midterm 30%
Final exam 45%

Homework: Homework will be collected each Thursday in the *beginning* of class and some of the problems will be graded. Late homework will not be accepted, but I will drop two of the lowest scores in the end. The homework will be announced in class and posted on the course webpage by the end of the week, unless otherwise announced.

Tests: There will be two tests given in this class: one midterm and one *comprehensive* final exam. The first Midterm will be on Thursday, March 3. It will be an EVENING EXAM, location and exact time to be announced. Please let me know if you have any conflicts that night (on March 3) BY JANUARY 13.

Make-up Policy: There will be no make-up exams except in extreme circumstances and at the discretion of the instructor. The instructor has to be informed *in advance* by email. You will be asked to provide proper documentation.

Attendance: Class attendance is expected and I'll "spot check" attendance throughout the semester. I may deduct up to 5% of your grade if you miss two of those random checks without a legitimate excuse.

General: Please note that your grade is significantly based on your homework score. This reflects how important it is to do your homework as it is impossible to learn mathematics without actually solving problems.

The lectures should provide you with the central concepts necessary for understanding the material. Sometimes, I will present the material differently than in the textbook. Thus, it is essential that you not miss classes. When studying for the tests be sure you understand (and can reproduce) the proofs and examples that I present in class as well as those contained in the assigned sections of the textbook.