Math 5587: Elementary PDE I  
Fall 2018

• **Instructor:** M. Carme Calderer, Office: Vincent Hall 507
• **email:** calde014@umn.edu
• **Class schedule and location:** Tuesday and Thursday  2:30-3:45 pm (Vincent Hall 1)  
4:45-6:00 pm (Amundson Hall 158).

• **Office hours:** Wednesday  2:00-3:30 pm and Friday 1:00-2:30 pm, or by appointment.
• **Course Prerequisites:** The following courses (or university approved equivalents) must have been  
completed and passed:
  1.  Math 2243 or 2373 or 2573,  and  
  2.  Math 2263 or 2374 or 2574.

• **Textbook:** *Introduction to Partial Differential Equations* by Peter J. Olver, Springer, 2014. The book can be  
found online through the Library.

• **Examinations:**
  1.  **Test 1:** Tuesday, September 18
  2.  **Test 2:** Thursday, October 18
  3.  **Test 3:** Thursday, November 15.
  4.  **Final:** As scheduled in the University calendar.

  *Please, be advised that Test 1 will be mostly on the course prerequisites. You may use your earlier  
  textbooks and notes to prepare for the test. Alternatively, you may consult materials online and  
  books from the Library that deal with the prerequisite topics.*

• **Books, notes and calculators will not be allowed during the tests.**

• **Course materials:** We will approximately cover the following sections of the textbook:
  
  Chapter 1, 2.1-2.4, 3.1-3.5, 4.1-4.4, 5.1-5.3.

• **Grading Policy:**
  1.  Homework assignments will count 15% towards to course grade.
  2.  Test 1: 20%
  3.  Test 2: 20%
  4.  Test 3: 20%
  5.  Final Examination: 25%

  A score of at least 90% is required to get an A in the course; a minimum score of 80% is required for a B; 70%  
  for a C and 60% for a D.

• **Homework assignments.** Exercises from the textbook:
  Assignment 1:  1.2, 1.6, 1.9, 1.20, 1.23. It is due on Thursday, September 13.
  Assignment 2:  2.1.2, 2.1.3 (b) and (d), 2.2.2(a), 2.2.4. Due on Thursday, September 23.
  Assignment 3:  2.2.20, 2.2.26, 2.3.2(a), 2.3.16, 2.4.2, 2.4.10. Due on Thursday, October 11.
  Assignment 4:  3.1.4 (b), 3.2.2 (a), 3.2.6 (a) and (f), 3.2.19 (b), 3.2.25, 3.3.2, 3.4.6, 3.5.2 (a) and (h), 3.5.8.  
  Due on Thursday, November 1.
  Assignment 5:  3.5.27 (c), 3.5.40, 4.1.4, 4.1.6, 4.2.2, 4.3.12 (a). Due on Thursday, November 29.

The University of Minnesota's standards for academic integrity are explained in the Student Conduct Code. Not meeting  
these standards can result in charges of scholastic dishonesty, sanctions and possible expulsion from the University.