

**Mathematics 3271 3.0: Partial Differential Equations**  
**Fall 2019**

Days: Mondays, Wednesdays and Fridays

Time: 2:30 p.m. – 3:20 p.m.

Place: WC 118

**Course Coordinator:** Professor M. W. Wong

**Office:** N530 Ross Building

**Office Hours:** Tuesdays and Thursdays, 11:30 a.m. - 1:00 p.m.

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**Course Objectives:** This is a first course in Partial Differential Equations. The students are expected to learn Convolutions, Fourier Transforms, Tempered Distributions of which the Dirac Delta is a special case and other analytic techniques in order to construct explicit formulas for the solutions of the heat equation, the Laplace equation and the wave equation in  $\mathbb{R}^n$ . The analysis required, such as Function spaces and modes of convergence in them, will be developed in the course.

**Textbook:** M. W. Wong, Partial Differential Equations: Topics in Fourier Analysis, CRC Press, 2014.

**Syllabus:** Selected material from Chapters 3–8, 11, 13

**Grading Scheme:**

Assignments 20%, 2 Class Tests 20% each, Final Exam 40%

**Important Dates**

Test 1 on Friday, October 11, 2019; Test 2 on Friday, November 15, 2019

Final Exam: TBA

**An Important Note about Tests and the Final Exam:**

There will be no make-up tests. Students who have to miss a test for some good reasons may petition to move the weight of the test to the final exam.

No aids of any kind are permitted in tests and the Final Exam.