Instructor: Dr. Yunrong Zhu   **Office**: PS 328B   **Phone**: 282-3819   E-Mail: zhuyunr@isu.edu

Course Website: MOODLE   **Office Hours:** TR 1:00 pm - 2:00 pm, or by appointment

Textbook: *Partial Differential Equations*, by Lawrence C. Evans, Second Edition, Graduate Studies in Mathematics, Vol. 19, AMS, Providence, RI, 2010. We will cover Chapters 1-2, and some selected topics in Chapter 3 and 4.

References:

- Fritz John, *Partial Differential Equations*, 4th Edition, Springer, 1991.

- Walter Strauss, *Partial Differential Equations, An Introduction*, 2nd Edition, Wiley 2007.

- Emmanuele DiBenedetto, *Partial Differential Equations*, 2nd Edition, Birkhäuser, 2010.

- Robert C. McOwen, *Partial Differential Equations, Methods and Applications*, 2nd Edition, Pearson, 2002.

- H. F. Weinberger, *A First Course in Partial Differential Equations with Complex Variables and Transform Methods*, Dover, 1995.

Prerequisites: Students are advised to be well prepared in analysis such as Math 5523/5524 (Real Analysis I & II). It is highly recommended that the students should get familiar with some basic PDEs through an undergraduate PDEs course Math 4465 and/or the graduate PDEs course Math 5565.

Course Descriptions: This is the first course in the sequence of *Differential Equations*. The main goal of this course is to gain a familiarity with a range of PDEs occurring naturally in mathematical physics, differential geometry and other areas of mathematics and sciences. In this course, we will focus on those important PDEs for which in certain circumstances explicit formulas can be obtained for the solutions.

Homework: The homework problems and due dates will be posted on MOODLE.

Exams: There will be one midterm exam and one final exam. The schedule of these exams will be announced at least one week before the exam dates.

Makeup Exams: There will be **NO** makeup exams allowed.

Grading: : Students course grade will be based on the Homework, the midterm exam, and the final exam. There will be NO "extra credit" work. The weights are distributed as follows:

30% Homework+ 30% Midterm Exam + 40% Final.

A+	93% and above	C	73%–76%
A-	90%–92%	C-	70%–72%
B+	87%–89%	D+	67%–69%
B	83%–86%	D	63%–66%
B-	80%–82%	D-	60%–62%
C+	77%–79%	F	59% and below

Academic Integrity and Dishonesty: Academic integrity is the pursuit of scholarly activity in an open, honest and responsible manner. Academic integrity is expected of all individuals in academe. Academic dishonesty in any form is unacceptable. Academic dishonesty includes, but is not limited to, cheating and plagiarism. All Idaho State University Policies regarding ethics and honorable behavior apply to this course (see http://www2.isu.edu/policy/4000/index.shtml).

Extra Help: Do not hesitate to come to my office during office hours or by appointment to discuss a homework problem or any aspect of the course. Free tutoring is available from the Math Center in the Student Success Center, Rendezvous 327 in Pocatello and CHE Room 220 in Idaho Falls. Information is available at http://www.isu.edu/success/math/index.shtml.

ADA Policy: Idaho State University is committed to providing equal opportunity in education for all students. If you have a diagnosed disability or if you believe you have a disability (physical, learning, hearing, vision, psychiatric) that might require reasonable accommodation in this course, please contact the Disability Services Center, Rendezvous Building, Room 125 (282-3599) http://www.isu.edu/disabilityservices.