Math 5440 - Introduction to Partial Differential Equations
August 17, 2016

Math 6850 - MWF at 10:45 - 11:35 in JWB 222
Homepage: http://www.math.utah.edu/~treiberg/M5440.html

Instructor: A. Treibergs, JWB 224, 581 - 8350.
Office Hours: MWF 11:45-12:45 & by appt.
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Prerequisites: "C" or better in MATH 2280 OR MATH 3140 OR MATH 3150 OR consent of instructor.


Grading:
Homework: To be assigned weekly. Homework will be due Fridays and will be collected in class. Papers turned into my mailbox in the math mail room (JWB 228) by 4:00 PM Fridays before I leave will be regarded as being turned in on time. Homework that is late will receive half credit.

Exams: Exams will be closed book except that you will be allowed to bring a "cheat sheet," an 8.5" x 11" piece of paper with notes on both sides. Your text, notes, homework papers, calculators, laptops, tablets, phones, text messaging devices, and other books will not be allowed.

Midterms: There will be two in-class one-hour midterm exams on Wednesdays Sept. 28 and Nov. 9.

Final Exam: Wed., Dec. 14, 10:30 am - 12:30 pm. Half of the final will be devoted to material covered after the second midterm exam. The other half will be comprehensive. Students must take the final to pass the course.

Course grade: Two midterms 40% + HW 30% + final 30%.

Withdrawals: Last day to drop a class is Sept. 2. Last day to add a class is Sept. 2. Until Oct. 21 you can withdraw from the class with no approval at all. After that date you must petition your dean's office to be allowed to withdraw.

ADA: The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All information in this course can be made available in alternate format with prior notification to the Center for Disability Services (www.hr.utah.edu/oeo/ada/guide/faculty/)

Faculty and Student Responsibilities:
All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student handbook. Students have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating, plagiarism and/or collusion, as well as fraud, theft, etc. Students should read the Code carefully and know they are responsible for the content. According to the Faculty Rules and Regulations, it is faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee. Faculty must strive in the classroom to maintain a climate conducive to thinking and learning (PPM 6-316). Students have a right to support and assistance from the University in maintaining a climate conducive to thinking and learning (PPM 6-400).

Course Description:
PDE's model everything around us from vibrations of solids, flow of fluids, diffusion of chemicals, spread of heat, the structure of molecules, the interaction of photons and electrons and the radiation of electromagnetic waves. This course provides an introduction to the techniques that have proved useful in analyzing PDEs. In addition to reviewing Fourier Series methods that work in special situations, we shall consider other tools that provide a qualitative description and approximations of solutions. The student will develop an appreciation of differences in the behavior of solutions of various types of PDEs.

We plan to cover Chapters 1-7 and selections from 9 - 11 time permitting.