Math 5440 — 1   Introduction to Partial Differential Equations   August 17, 2016
Math 6850 — 1   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.

Texts: Walter A. Strauss, Partial Differential Equations: An Introduction,
                 2nd ed., Wiley (2007) ISBN—10: 0470054565 ISBN—13: 978-0470054567
 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 on tests, 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 conductive 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).

Note: The syllabus is not a binding legal contract. It may be modified by the
                 instructor when the student is given reasonable notice of the
                 modification.

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.