Math 338: Partial Differential Equations
Syllabus (Fall 2013)

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Basic Course Info
PDE's meets Tuesday and Thursday from 1-2:20pm. Lab, Wednesday 6-8pm.

PREREQUISITE: Math 235 Ordinary Differential Equations. You will not succeed in this class without first taking Ordinary Differential Equations.

Text

Good Reference:
Differential Equations and Boundary Value Problems – Edwards and Penney (not required but good to have as a reference) – This is the book we used for Ordinary Differential Equations.

General Calendar
First class meeting: September 3rd
Drop deadline: October 11th.
Last class meeting: December 5th

Exam Calendar
Take home final exam due December 10th at 5pm

Grading Policy
Final Exam 30%
Midterm Exam 30
Homework Assignments, Reading, and In-class Projects 30%
In Class Participation 10%

Homework is assigned daily, posted on the class website. It is very important that your homework is well written and neatly done. For each major step in the calculation explain in words what you are doing and why you are doing it. I don't accept late homework.

You will be asked to read ahead of the class and submit chapter notes as part of your weekly handed in homework. The goal is for each student to prepare for class. You should first read the chapter without taking notes. Then go back through and write down all new vocabulary or definitions. You might have to google words you don't know. Then go through and outline the chapter and try to follow along with the examples. It's ok if you have questions they can be answered in class.
Objectives
By the end of this course you should have the ability to:

Classify a partial differential equation as parabolic, hyperbolic or elliptic.
Identify if the problem is homogeneous or if it has homogeneous boundary conditions.
Select and use the appropriate solution method based on your classification.
Solve parabolic, hyperbolic and elliptic partial differential equations using methods from class.
Discuss physically what the equations and boundary conditions mean.
Interpret your solutions in terms of real world applications.
Use the vocabulary of partial differential equation to explain concepts to your classmates.

Expectation of Students
1. **Participate in class and be an active member of our learning community.** Please arrive to class ready to learn and ready to help your classmates learn. Do not distract yourself or your classmates with non-mathematical talk during class. Be willing to work together and collaborate to make this class the best possible learning experience for yourself and others.
2. **Attend class each day, arrive on time and be prepared to learn.** Do not have distractions during class such as cell phones, laptops or iPods on during class time. Do not chat during class about outside things.
3. **Complete your homework well in advance.** Make sure you have plenty of time to come to office hours with questions.
4. **Check for the latest assignments online and know when deadlines are.** Hand in assignments on time. Make sure that you are doing your own work and learning the course material.
5. **Set yourself up for success and be responsible for your own learning.** Often successful students do coursework daily, it is better to do a small amount each day and keep it fresh in your mind than cram right before the exam. They also meet regularly with other students from the class to work on homework together. Spend at least 3-4 hours a day working on partial differential equations.
6. **Abide by the highest standards of Academic Honesty.** We are a community of scholars who collaborate and learn together, but there is a fine line between collaboration and blatant copying. Please give credit where credit is due. If you are working in a group, admit when someone gave you help. If you look up something online or in a book, reference the source. See the University of Redlands Catalog p.13 if you need more information.
7. **Hand in work that you are proud of.** Make sure that each assignment reflects the scholar that you are. You should be proud of the work that you submit for your classes. Proof read written portions and make sure your work is professional and easy to follow.
8. **Get help if you need it!** Math is not easy, that is part of why it is so fun. If you put in the effort, I will be by your side to help make sure you succeed.
9. **Have some fun with Math!**

Academic Success and Disability Services
A student with a documented disability who wishes to request an accommodation should contact Academic Success and Disability Services at (909) 748-8108.

Academic Honesty
The University of Redlands Policy on Academic Honesty will be strictly adhered to and applied. The Procedures for Addressing Academic Honesty are set forth in the University of Redlands Catalog. It is expected that all students read and understand the Policy and the provisions outlined in the Catalog.