Math 422/522
Advanced Applied Analysis
TR 8:00-9:30 AM, PSYCH 307
Fall 2006

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Office Hours: TBA

Textbook: Advanced Calculus for Applications, Second Edition, by Francis B. Hildebrand, published by Prentice Hall.

Homework: Homework will be assigned on a regular basis. Only part of the homework will be turned in, but all should be done. **Since only a small number of problems will be turned in, it is expected that the homework assignments will be immaculate, typed or neatly handwritten, with explanations written in complete sentences when appropriate.** Sloppy work will not be accepted. In addition, exams will consist approximately 30-50% of problems taken directly out of the homework, mostly from problems not turned in for grading. Homework will be worth 100 points, or the equivalent of one exam.

Exams: There will be two in-class exams and a final. Approximately 30-50% of each exam will consist of problems taken directly from the homework, and the rest will consist of new problems. Each exam will be worth 100 points. **The midterm exams are tentatively scheduled for Thursday September 28 and Tuesday November 21 and the final is scheduled for Thursday December 14 at 8:00-10:00 AM.**

Grades: A tentative grade will be determined by assigning 100 points to each of the exams and the homework and 200 points to the final (using the standard scale of 90-100% A, 80-89% B, 70-79% C, etc.). The final course grade will be at least as high as the tentative grade. Small adjustments may be made on consideration of positive trends in the class

Attendance: Students are expected to attend every scheduled class and to be familiar with the University Class Attendance policy as it appears in the General Catalog. **It is the student's responsibility to keep informed of any announcements, syllabus adjustments or policy changes made during scheduled classes.** Students are expected to behave in accordance with the Student Code of Conduct and the Code of Academic Integrity. The guiding principle of academic integrity is that a student's submitted work must be the student's own.

Disabilities: If you anticipate issues related to the format or requirements of this course, please meet with me to discuss ways to ensure your full participation in the course. If you determine that formal, disability-related accommodations are necessary, it is very important that you be registered with Disability Resources (621-3268; drc.arizona.edu). You should notify me of your eligibility for reasonable accommodations by Friday, September 1. We can then plan how best to coordinate your accommodations.

Withdrawing: Students withdrawing from the course before October 13 will receive the grade W if they are passing at the time. Students will be considered to be passing at the time of withdraw if they have scored at least 50% on the work completed at that time. The University allows withdraws after October 13, but only with the Dean's signature. Late withdraws will be dealt with on a case by case basis, and requests for late withdraw with a W without a valid reason may or may not be honored.

Incomplete: The grade of I will be awarded if the student has completed all but a small portion of the required work, has scored at least 50% on the work completed, has a valid reason for not completing the course on time, agrees to make up the material in a short period of time, and asks for the incomplete before grades are due, 48 hours after the scheduled final exam.

Tentative approximate schedule

Weeks	**Sections**	**Topic**
1-2	1.1-1.5,1.8,1.9?	ODE direct methods
3-4	2.1-2.8	Laplace transforms
5	4.1-4.2,4.4,4.7?,?	Series solutions
6-7	5.1-5.4,5.6?,5.7?,5.10-5.12,5.15	Fourier series
8-12	6.1-6.16	Vector calculus
13-14	9.1-9.4,9.10,9.14?,?	PDE