Math 342B - Methods of Applied Math - Spring 2014

Instructor: Prof. Ricardo Carretero
Lectures: Schedule: Mo, We: 5:30 - 6:45pm @ GMCS-325. Sched#21913
Office Hours: Mon: 12:00 - 1:00 @ GMCS-577 (or by appointment)
             Wed: 12:00 - 1:00 @ GMCS-577 (or by appointment)
E-mail: carreter@math.sdsu.edu

Important dates:
Tue, Feb. 04: Last day to adjust schedule (adds, drops, etc.)

Textbook:
Mathematical Methods in the Physical Sciences
You can buy the textbook from the Aztec shop.
In addition, some material will be drawn from several reference books
and a number of journal articles.

Prerequisites:
Math-342A with minimum grade of C.

Catalog Description:
Second order ordinary differential equations, power series methods, Bessel functions, Legendre
polynomials. Linear partial differential equations, separation of variables, Fourier series, Sturm-Liouville
theory, orthogonal expansions, Fourier Transforms. Use of computer software packages for symbolic
algebra and solution of differential equations.

Syllabus:
We will basically cover chapters 11, 7, 12, 13, 14, 15 with certain small omissions.

11. Special Functions: Gamma, Beta, and Error Functions.
   7. Fourier Series and Transforms.
   12. Series sols. to DEs, Legendre Polyn., Bessel functions, orthogonal functions.
   14. Functions of Complex Variable.
   15. Probability [if time allows].

Grading:
Weights:
   Homework 40%
   Midterm Exams (2) 30%
   Final Exam 30%

Scale:
   A  90% and above
   B  80% and above
   C  70% and above
   D  60% and above
   F  Otherwise

Homework:
Homework assignments are posted HERE.
Homework is assigned each week or so.
The homework is to be handed in each WEDNESDAY.
Late homework is never accepted!
Rules of Engagement:

Rescheduling:
Late homework will not be accepted.
No make-up tests.

Personal Conflicts:
No special arrangements will be made for personal conflicts such as:
+ Family related issues (weddings, visiting relatives, etc.).
+ Work related conflicts: schedule, traveling, traffic, etc.
+ Vacations planned during regular class meetings.
+ Personal problems with roommates. Etc...
Special arrangements can be made, however, only in the most compelling and verifiable circumstances such as disabilities.

Disabilities:
If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact Student Disability Services at (619) 594-6473. To avoid any delay in the receipt of your accommodations, you should contact Student Disability Services as soon as possible. Please note that accommodations are not retroactive, and that I cannot provide accommodations based upon disability until I have received an accommodation letter from Student Disability Services. Your cooperation is appreciated.

Attendance:
Attendance will not be recorded. It is your responsibility, however, to be up to date in the progress of the course, dates for: homework, exams, and any possible changes made to this syllabus.
Miscellaneous Only University approved excuses for absences will be accepted. Each student will be responsible for knowledge of a scheduling and announcements made in class.
Please visit regularly this webpage since class information will be posted throughout the semester.

Lateness or leaving class early is unacceptable.
If lateness becomes a common problem, the instructor reserves the right to lock the doors.

Academic Integrity/honesty:
All work that you complete in this class should be your own.
Any form of cheating will result in an "F" and a referral to the Dean for further action.
All students admitted to SDSU have signed a statement of academic honesty committing themselves to be honest in all academic work and understanding that failure to comply with this commitment will result in disciplinary action. This statement is a reminder to uphold your obligation as a student at SDSU and to be honest in all work submitted and exams taken in this class and all others.

General:
Disrespectful behavior such as eating or reading material not related to the course will not be tolerated.
Any behavior considered a distraction to those around you, including the instructor, will not be tolerated.
Cellular phones should be powered off before entering the classroom.

Participation:
Participation in class is encouraged. If you have a question, ask it! If you do not understand something, say so! Any question that will help you to better understand the material is not stupid. Because of this, I expect you to be patient and respectful of others who ask questions in an effort to do well.

Addenda:
The instructor reserves the right to make modifications to the syllabus. Any addendum will be announced in class (you are responsible for attending class during such announcements).