MAT 517 Spring 2014

Professor: Lixin Shen

Class: TTh 12:30pm-1:50pm 119 Carnegie

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Office Hours: TTh 2:00-3:00 or by appointment

Catalog Description: MAT 517. **Partial Differential Equations and Fourier Series** (3 Credits) Partial Differential Equations, Boundary Value Problems, Fourier Series and orthogonal expansions, Bessel functions and Legendre polynomials. Prereq: Either MAT 414 or Mat 485. We will cover selected sections (marked with a star) from Chapters 1, 2, 4, 5, 6 of the textbook.

Text: *Partial Differential Equations*, 2nd Edition, by Walter A. Strauss, Wiley, Hoboken, NJ, 2008.

Homework: Homework will be assigned after each class. It will be the basis for weekly quizzes. You are encouraged to ask questions about problems you are having trouble with the day after they are assigned. **Working many problems is essential for learning mathematics!** There should be ample class time to discuss any difficulties with homework problems. Depending on availability of grading assistance we may also collect some homework problems.

Attendance: Class attendance is essential for your understanding of the material.

Examinations: There will be three in class examinations during the semester, as well as a final examination covering the entire course. Dates and times of the examinations are tentatively scheduled as follows

Date	Exam/Final Exam
Feb. 6	**Midterm Exam**
Mar. 6	**Midterm Exam**
Apr. 10	**Midterm Exam**

The final exam will be tentatively scheduled on Tuesday, May 6. Don't make plans to leave campus before this time.

Grading: The following grading scheme will be used. Quizzes/homework 20%, each midterm exam 20%, the final exam 20%. Your letter grade for the term then comes from the following table.

93–100	A	77–79	C+
90–92	A-	73–76	C
87–89	B+	70–72	C-
83–86	B	60–69	D
80–82	B-	0–59	F

Academic integrity: The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it is their responsibility to learn about instructor and general academic expectations with regard to proper citation of sources in written work. The policy also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy, see the Academic Integrity Policy and Procedures.

Disabilities: Students who may need academic accommodations due to a disability are encouraged to discuss their needs with the instructor at the beginning of the semester. In order to obtain authorized accommodations, students should be registered with the Office of Disability Services (ODS), 804 University Avenue, Room 309, 315-443-4498, and have an updated accommodation letter for the instructor. Accommodations and related support services such as exam administration are not provided retroactively and must be requested in advance. For more information about services and policy, see http://disabilityservices.syr.edu

Academic Honesty: Maintaining academic honesty is vital in protecting your efforts in the course. Accordingly, cheating will not be tolerated. The penalty for cheating will range from a zero on the relevant work or entire exam, to a **F** in the course. In accordance with official policy, all violations will be reported to the College of Arts and Science for the further action.

Homeowrk:

Section	Problems
1.1	2, 5, 7, 10, 11, 12
1.2	1, 2, 5, 6, 8, 9
1.5	3, 5, 6
2.1	1, 2, 3, 5, 8, 9
2.2	2, 3, 5
2.3	1, 4, 5, 6
2.4	1, 4, 7, 8, 11, 16
4.1	2, 3, 4
4.2	1, 2, 3, 4
5.1	1, 2, 4, 8, 9
5.2	1, 2, 7, 11, 15
6.1	1, 2, 5, 6, 11
6.2	1, 3, 7
6.3	1, 2, 3