

MAT 517. Partial Differential Equations and Fourier Series
A. Lutoborski, Syracuse University
Fall 2017.

Classes: Section 1, TTh, 9:30-10:50, Carnegie Building, Room 114.

Instructor: Professor Adam Lutoborski, Department of Mathematics, Room 311 A Carnegie, phone: 443-1489, e-mail: alutobor@syr.edu

Office Hours: Monday 11:00-12:00, Wednesday 3:00-4:00.

Text: "Partial Differential Equations. An Introduction." by W.A. Strauss, John Wiley, 2nd edn.

Prerequisites: MAT 414 or MAT 485.

Course Description: The course discusses the basic material on partial differential equations and on the use of Fourier series in the solution of partial differential equations. Boundary value problems in rectangular, cylindrical and spherical coordinates are studied. We will cover select sections (marked with a star) from Chapters 1,2,4,5,6 of the text.

Homework: Homework will be assigned after each class. It will be the basis for weekly quizzes. The best way to learn course material is to do problems.

Exams, Final Exam: There will be 2 exams: Exam 1 after Chapter 2 is covered and Exam 2 after Chapter 5 is covered. Precise dates will be announced in class. (tentatively scheduled: Exam 1, week 5: Sep 28, Exam 2 week 12: Nov 16, Final exam will be on Friday Dec 15, 5:15- 7:15 pm. There will be absolutely no make-ups for any reason. If you miss a test for a valid reason, the final exam grade will count correspondingly. Exams will be preceded by a review. Everyone is required to take the final exam.

Course Grades: Course grades will be determined by: 2 tests: 50% (25% each), quizzes: 25%, final exam: 25%.

Homework:

Section	Strauss 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

Disability-Related Accommodations: Students who are in need of disability-related academic accommodations must register with the Office of Disability Services (ODS), 804 University Avenue, Room 309, 315-443-4498. Students with authorized disability-related accommodations should provide a current Accommodation Authorization Letter from ODS to the instructor and review those accommodations with the instructor. Accommodations, such as exam administration, are not provided retroactively; therefore, planning for accommodations as early as possible is necessary. For further information, see the ODS website, Office of Disability Services <http://disabilityservices.syr.edu/>

Academic Integrity: Syracuse University's Academic Integrity Policy reflects the high value that we, as a university community, place on honesty in academic work. The policy defines our expectations for academic honesty and holds students accountable for the integrity of all work they submit. Students should understand that it is their responsibility to learn about course-specific expectations, as well as about university-wide academic integrity expectations. The policy governs appropriate citation and use of sources, the integrity of work submitted in exams and assignments, and the veracity of signatures on attendance sheets and other verification of participation in class activities. The policy also prohibits students from submitting the same work in more than one class without receiving written authorization in advance from both instructors. Under the policy, students found in violation are subject to grade sanctions determined by the course instructor and non-grade sanctions determined by the School or College where the course is offered as described in the Violation and Sanction Classification Rubric. SU students are required to read an online summary of the University's academic integrity expectations and provide an electronic signature agreeing to abide by them twice a year during pre-term check-in on MySlice.

The Violation and Sanction Classification Rubric establishes recommended guidelines for the determination of grade penalties by faculty and instructors, while also giving them discretion to select the grade penalty they believe most suitable, including course failure, regardless of violation level. Any established violation in this course may result in course failure regardless of violation level.

For more information and the complete policy, see <http://class.syr.edu/academic-integrity/>

Religious observances policy: SU religious observances policy recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through MySlice (Student Services → Enrollment → My Religious Observances) from the first day of class until the end of the second week of class.