MAT 517 Partial differential equations Fall 2018
Class: Tu - Th 12:30-1:50 pm Carnegie 115

Instructor: Professor Andrew Vogel, office: Carnegie 313B, phone: 443-1584, email: alvogel@syr.edu

Office hours: MW 8-9 am, TH TBD and by apt.

Text: Partial Differential Equations, An Introduction, by Walter A. Strauss, second edition, published by Wiley

Course: We will cover the starred sections in the book. First order linear equations, flows, vibrations, diffusions, initial and boundary value problems. The wave equation, causality and energy, the diffusion equation, diffusion on the line, comparison of waves and diffusions. Separation of variables, Neumann, Dirichlet and Robin conditions. Fourier coefficients, even, odd, periodic, orthogonal and complete functions. Laplace's equation in rectangles and cubes, Poisson's formula.

Course Grade: Will be based on two semester exams on September 25 and October 30 each counting 25%, a final exam (see MySlice for the date and time) counting 30% and homework/quizzes counting 20%. The homework will be assigned in class as the material is covered.

The grading scale is:

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

Students with Disabilities: If you believe that you need academic adjustments (accommodations) for a disability, please contact the Office of Disability Services (ODS), http://disabilityservices.syr.edu, located in Room 309 of 804 University Avenue, or call (315) 443-4498 or TDD: (315) 443-1371 for an appointment to discuss your needs and the process for requesting academic adjustments. ODS is responsible for coordinating disability-related academic adjustments and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since academic adjustments may require early planning and generally are not provided retroactively, please contact ODS as soon as possible.

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. Syracuse University's 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 holy days 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 no later than 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.

Program Learning Outcomes (Mathematics Majors)

- Students will have a basic knowledge of the contributions and significance of important historical figures in mathematics
- Students will have a basic knowledge of the major modern theories of analysis, abstract algebra, geometry, and applied mathematics
- Students will be able to effectively use mathematical word processing software
- Students will have a basic understanding of career options available to mathematics majors
- Students will be able to locate and use sources and tools that aid mathematical scholarship