Remote-Instruction Plan for 640:463/645:527:

Siqi Fu

COURSE TITLE: Partial Differential Equations and Boundary value problems/Applied Partial Differential Equations.

Remote Instruction: I will use Canvas for remote-instruction. I plan to record my lectures with iPad screen recorder and post the materials on Canvas/Youtube. Students are encouraged to view material before class times. The recorded materials will be played during the regular class hours using Canvas' Conference functionality. Students are asked–if possible–to participate in these live remote lectures. They can ask questions using texts or microphone during the playback of the recorded lectures. Office hours will also be conducted using Canvas Conference.

Performance Assessment: Students will be asked to submit their homework assignments through Canvas. The second midterm will take place on Monday, April 13 during regular class hours. It will be an open book test and the students will be given double amount of time to complete the test, scan and submit their work using Canvas. The final exam will have two components. (1) Students will be asked to write a 10 to 15-page essay on an application of Partial Differential Equations. (2) There will also be an open book final exam on Monday, May 11, 6-9pm.

Grades will assigned by students' performance in the homework assignments, mid-term tests, and the final exam as spelled out in the syllabus.

Syllabus For Math 640:463/645:527

Spring 2020
Rutgers University-Camden

COURSE TITLE: Partial Differential Equations and Boundary value problems/Applied Partial Differential Equations.

TEXTBOOKS: *Applied Partial Differential Equations* (3^{th} edition), by J. David Logan, Springer, 2015.

COURSE DESCRIPTION: This three-credit course introduces the student to theory and applications of partial differential equations (PDE). Topics include: (1) Conservation laws, PDE models of diffusion, vibration, heat conduction. (2) Cauchy problems for heat and wave equations on unbounded domains, Duhamel's principle, Laplace and Fourier transforms. (3) Orthogonal expansions and Fourier series. (4) Separation of variables, Sturm-Liouville problem, Laplace equation. (4) Applications of PDE in life sciences. (5) Numerical methods. We will cover most of the material in the textbook.

COURSE INFORMATION:

- Instructor: Siqi Fu
- Office: BSB 426
- Office hours: M 1:00 pm–2 pm; M: 4:00-5:00 and by appointments
- Phone: 856 225-2349.
- E-mail: sfu@camden.rutgers.edu
- Web page: `http://crab.rutgers.edu/~sfu/`
- Lectures: M 6:00-8:50, BSB-107

ASSESMENT: There will be three tests and several homework assignments/projects. Your course grade will be determined according to the following weights:

- Attendance, participation, assignments/projects : 20%
- Test I: 20%
- Test II: 25%
- Test III: 35%

Dates for the tests will be announced in class.

ATTENDANCE POLICY: Attendance is expected at every class period with exception for illness, court appearance, and other legitimate emergency. See the Rutgers University attendance policy at http://policies.rutgers.edu/1027-currentpdf.

ACADEMIC INTEGRITY: All Rutgers students are expected to be familiar with and abide by the academic integrity policy (http://academicintegrity.rutgers.edu/academic-integrity-policy). Violations of the policy are taken very seriously.

UNIVERISTY DISABILITY STATEMENT: Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: https://ods.rutgers.edu/students/documentation-guidelines. If the documentation supports your request for reasonable accommodations, your campuss disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form at https://webapps.rutgers.edu/student-ods/forms/registration.