

# MAT 341 Applied Real Analysis

Saman Habibi Esfahani

Summer 2021

Course meets online synchronously

Class time: Monday-Wednesday-Thursday 6:00pm- 8:15pm (EST)

Instructor: Saman Habibi Esfahani

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Course Page: <https://sites.google.com/stonybrook.edu/sesfahani/real-analysis?authuser=0>

## 1 Course Description

This course is an introduction to partial differential equations. We will mainly focus on three problems.

1- The Laplace equation. 2- The wave equation. 3- The heat equation.

## 2 Prerequisites

C or higher in the following: MAT: 203 or 205 or 303 or 305 or 307 or AMS: 261 or 361.

Recommended Prerequisites: MAT: 200 or 250.

## 3 Exam Dates

Midterm: Thursday 7/1/2021 (Online, during the class)

Final: Thursday 6/17/2021 (Online, during the class)

There will be no make-up exams, students who are not able to attend the exam for medical, or other justified and documented reasons, should notify the instructor as early as possible.

## 4 Textbook

(Recommended not required) Boundary Value Problems and Partial Differential Equations by David L. Powers.

## 5 Grading

Homework 30%, Midterm 30%, Final 40%.

We will have homework every week. You should upload your solutions to the gradescope before Friday 10:00 pm. You are encouraged to type your homework in Latex, which might earn you up to 5% bonus credit. Homework may be turned in up to a week late for 60% of the points.

## 6 Disability Support Services

If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact Disability Support Services (631) 632-6748 or

[studentaffairs.stonybrook.edu/dss/](http://studentaffairs.stonybrook.edu/dss/)

They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following website:

[www.sunysb.edu/facilities/ehs/fire/disabilities](http://www.sunysb.edu/facilities/ehs/fire/disabilities)

## 7 Academic Integrity

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instance of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at

[www.stonybrook.edu/uaa/academicjudiciary/](http://www.stonybrook.edu/uaa/academicjudiciary/)

## 8 Critical Incident Management

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, and/or inhibits students' ability to learn.

## 9 Note

The instructor might change or modify this syllabus. Notice of such changes will be by announcement in class, and changes to this syllabus will be posted here and on the blackboard.