Instructor: Zaher Hani, (Office: Skiles 224), Email: zhani6@gatech.edu, Website: http://www.math.gatech.edu/~zhani6 Office hour: Wednesday 8:00-9:00am and Friday 11:00–12:00am, or by appointment.

Course Coordinates: MWF 9:05–9:55 AM in Instructional Center 219. [Click here] for a searchable map.

Prerequisites: Math 2403 or Math 2413 or equivalent, and Math 2406.


Further optional resources: The following optional textbooks can be consulted for reference and extra problems.

5. Sandro Salsa, Partial Differential Equations in Action: From Modelling to Theory (Universitext). This might be a bit advanced.

Homework: There will be a weekly homework set. You are allowed to discuss the homework with others in the class, but you must write up your homework solution by yourself. In addition to being a requirement for this class, this ensures that you can solve the similar problems that are likely to arise on the exams. You are also highly encouraged to solve further problems from the textbook.

Grading: Homework 25%, two in-class midterms 45%, and Final 30%.

Course description and projected topics: This is a first undergraduate course in partial differential equations. We will attempt to cover most of the following topics:

- What are PDE.
- The Wave equation.
• The Diffusion Equation.

• Laplace’s Equation.

• Boundary value problems.

• First order equations.

• Fourier Series.

• Green’s identities and Green’s functions.

• Some methods to compute explicit solutions.

• Time permitting we will cover topics including distributions and eigenvalue problems.

**Important Websites:**

• Course Information/Announcements/Grades: [https://t-square.gatech.edu/](https://t-square.gatech.edu/) (required)

• Georgia Tech Honor Code: [http://www.honor.gatech.edu/](http://www.honor.gatech.edu/)

**Important Dates**

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<tr>
<td>Aug 22</td>
<td>First day of classes</td>
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<tr>
<td>October 10-11</td>
<td>Fall Student Recess - No Class</td>
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<td>October 29</td>
<td>Last day to drop or withdraw with a grade of “W”</td>
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<td>December 9</td>
<td>Final Exam (8:00-10:50pm)</td>
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