

APMA 1330 – Applied Partial Differential Equations II

Fall semester, 2018

Instructor:

Anastasios Matzavinou

Office:

Room 325, 182 George Street

Class meeting times:

MWF 1:00 pm – 1:50 pm,
Barus & Holley 165

Instructor's office hours:

Mon, Fri 2:00pm – 3:00pm
(or by appointment)

Teaching assistant:

Kunrui Wang

TA's office hours:

Wed 10:00am – 11:00am

Class web page:

<https://canvas.brown.edu/courses/1076348>

Announcements and other information about the class will be posted regularly on the class web page.

Course description:

This course covers basic concepts and methods for solving partial differential equations. Topics include the classification of linear partial differential equations, heat conduction and diffusion equations, the wave equation, Poisson's equation, the method of separation of variables, the method of characteristics, Fourier series, integral transforms, and the Sturm-Liouville theory.

More advanced topics, including variational formulations and weak solutions of elliptic problems, may be addressed depending on the interests of the class and time restrictions.

Required text:

Partial Differential Equations with Fourier Series and Boundary Value Problems (Third edition) by N. Asmar. Dover Publications, 2016.

Grading policy:

The final grade will be based on homework assignments, a take-home midterm exam (see below for dates) and a final exam:

Homework assignments	30%
Midterm exam	30%
Final exam	40%

Homework assignments:

Homework problems will be handed out on a regular basis. Discussion of homework assignments with other students is encouraged, but what is handed in should be your own work.

Important dates:

Midterm exam

Wednesday, October 24

Final exam

Friday, December 14

Accommodations and other considerations:

Brown University is committed to full inclusion of all students. Please inform me early in the term if you have a disability or other conditions that might require accommodations or modification of any of these course procedures. You may speak with me after class or during office hours. For more information, please contact Student and Employee Accessibility Services at 401-863-9588 or SEAS@brown.edu.

Students in need of short-term academic advice or support can contact one of the deans in the Dean of the College office.