CORNELL UNIVERSITY

AEP 3200 Introductory Mathematical Physics

Spring 2021

Instructor: Lena F. Kourkoutis

TA: Alan Chen Office hours: T 5-6 PM, R 4-5 PM Zoom

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Registrar: Cynthia Reynolds

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Lectures: M, W, F 8:00-8:50 AM 700 Clark Hall & via Zoom through Canvas

Recitation: T 1:00-2:15 PM 120 Physical Sciences Building

W 2:45-4:00 PM 700 Clark Hall & via Zoom through Canvas

Prelim: March 18, 2020; 6:30-8 PM

Final: TBD

Homework: Due on Thursday at 7 PM and submitted via Canvas

Course web site (Canvas): Go to the AEP 3200 site at http://canvas.cornell.edu

Lecture notes, recordings, homework assignments, and reading assignments will be posted.

Grading Homework: 25%

Participation: 10% Prelim: 30% Final: 35%

Textbook: *Mathematical Physics* by Bruce R. Kusse and Erik A. Westwig, 1st or 2nd ed.

Supplemental Texts and Reserve Reading:

- Mathematical methods of physics, J. Mathews, R.L. Walker
- Complex variables and applications, R. V. Churchill, J. W. Brown, R. F. Verhey
- Mathematical methods for physicists, G. B. Arfken, H. J. Weber, F. E. Harris
- *Mathematical physics*, E. Butkov

Homework: Problem sets will be assigned each week on Thursday and will be due the following Thursday. Submission with be electronically through Canvas. Late homework assignments will have 10% deducted per day until the answer key is posted, after which they will not receive any credit. I will drop your lowest homework score for the semester. In other words, you get one but only one "freebie". Please use it wisely.

POLICIES

Academic Integrity

Students are expected to abide by the Cornell University *Code of Academic Integrity* with work submitted for credit representing the student's own work. Discussion and collaboration on homework assignments is permitted and encouraged, but final work should represent the student's own understanding and should acknowledge such extra help by name.

Course materials posted on Canvas are intellectual property belonging to the author. Students are not permitted to buy or sell any course materials without the express permission of the instructor. Such unauthorized behavior will constitute academic misconduct.

Accommodations

This course complies with the Cornell University policy and equal access laws to ensure that students with disabilities can still participate fully in this course. Please request your accommodation letter early in the semester, or as soon as you become registered with Student Disability Services (SDS), so that we have adequate time to arrange your approved academic accommodations. Once SDS approves your accommodation letter, it will be emailed to both you and me. Please follow up with me to discuss the necessary logistics of your accommodations. If you are approved for exam accommodations, please consult with me at least two weeks before the scheduled exam date to confirm the testing arrangements. Finally, if you experience any access barriers in this course reach out to me or your SDS counselor right away.

Respect in Class

Everyone, the instructor, TAs, and students, must be respectful of everyone else in this class. All communication, in class and online, will be held to a high standard for thoughtfulness and inclusiveness: it may never target individuals or groups for harassment, and it may not exclude specific groups. That includes everything from outright animosity to the subtle ways we phrase things and even our timing.

If any of the communication in this class doesn't meet these standards, please contact the instructor as early as possible. If for whatever reason you don't feel comfortable discussing something directly with the instructor please contact your advising office or the department chair.