Physics 7310

T. DeGrand–office Gamow Tower F-319, tel 492-8602, email thomas.degrand@colorado.edu
Class meets MWF 1:00 to 1:50 in Duane G-125
Office hours – Wednesday –2-4 and and Thursday–1 to 5, plus when you can
find me – NOT right before class or Friday morning, please!
Grade:
  • homework 250
  • midterm 100
  • final 150
  • total 500 points

The midterm will be in the evening, 1 1/2 hours long, in mid October. We’ll
figure out a date later. The final exam is Tuesday 17 December, 430-7 PM in
our classroom.
Homework will typically be given out on Wednesdays, due Fridays 10 days
later. The questions will also be posted on
  • http://www-hep.colorado.edu/~degrand/p7310.html

NO late homework will be accepted without prior arrangement. Homework
solutions will be scanned onto the web page.
The grader is Matteo Wilczak matteo.wilczak@colorado.edu.
Text: Jackson, “Classical electrodynamics.” I will not fol low Jackson’s order
of topics when I think I can do better. I hope to end the first semester with
cavities and wave guides.
Books I like, and will try to put on reserve in the Engineering-Math-Physics
library include
  • Zangwill, “Modern Electrodynamics.” A new book, almost orthogonal in
    its approach to the more traditional Jackson. Check it out; there is some
    amazing stuff in there.
  • Landau and Lifshitz, “Classical theory of fields”
  • Landau and Lifshitz, “Electrodynamics of continuous media” Typical Lan-
    dau and Lifshitz, terse and complete. The division into two books is a bit
    awkward.
  • Smythe – An old book which is useful for some boundary value problems
  • Stratton – Another old book
• Panofsky and Phillips – Another old book. The last three were pre-Jackson standard texts, for their generations

A big part of this class is finding an appropriate mathematical structure to solve your problem. I own a number of mathematical methods of physics books – Morse and Feshbach, Matthews and Walker are two. The undergraduate text by Boas is occasionally useful. If you can find an Abramowitz and Stegun in a used book store, pick it up. Stone and Goldbart is slightly too highbrow for me, but maybe not for you. Of course, I am like you: I often start with Wikipedia. Another on line resource is the NIST digital library of mathematical functions http://dlmf.nist.gov/. You need an integral table. I don’t own the king, Gradsteyn and Rhyzik. I found Peirce, “A short table of integrals” on line several places and was able to print the one on openlibrary.org. It has everything you would need for a test.

Maybe this is too old fashioned, but I find that when I am looking something up, a book is nicer than a web page because usually the expression I really want is on the page next to the one with the expression I think I want.

Finally, if you qualify for accommodations because of a disability, see me as soon as possible but before the second week of class.

A long version of the syllabus with all kinds of required statements can be found in a link on the class web page. Here it is!

Syllabus Statements

Accommodation for Disabilities

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the Disability Services website. Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical condition or injury, see Temporary Medical Conditions under the Students tab on the Disability Services website.

Classroom Behavior

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Class rosters are provided to the instructor with the student’s legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. For more information, see the policies on classroom behavior and the Student Code of Conduct.
Honor Code

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code (honor@colorado.edu; 303-492-5550). Students who are found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code as well as academic sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found at the Honor Code Office website.

Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation

The University of Colorado Boulder (CU Boulder) is committed to fostering a positive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct (including sexual assault, exploitation, harassment, dating or domestic violence, and stalking), discrimination, and harassment by members of our community. Individuals who believe they have been subject to misconduct or retaliatory actions for reporting a concern should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or cureport@colorado.edu. Information about the OIEC, university policies, anonymous reporting, and the campus resources can be found on the OIEC website. Please know that faculty and instructors have a responsibility to inform OIEC when made aware of incidents of sexual misconduct, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about options for reporting and support resources.

Religious Holidays

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, (Faculty: insert your procedures here—I don’t have any, we can figure it out if needed) See the campus policy regarding religious observances for full details.