University of Maryland
Department of Physics

Physics 272 and 272H Spring 2024

GENERAL INFORMATION

Title:	Introductory Physics: Fields
Instructor:	Dr. James F. Drake Office: A. V. Williams Bldg. (3311) e-mail: drake@umd.edu Office Hours: by appointment or random access.
Rooms and Time:	TuTh 12:30-1:45 – Rm 1204 Physics W 10:00-10:50 – Rm 1204 Physics Questions in class are strongly encouraged. One class hour per week will be devoted to working problems and further discussion.
Graders:	Clayton Ristow (cristow@umd.edu) Anthony Boboc (aboboc@terpmail.umd.edu)
Text:	D. Giancoli, *Physics for Scientists and Engineers*, 5th Edition, Vol. 2, Pearson
ELMS:	All of the course materials, including the syllabus, class notes, homework assignments and solutions, and exams and solutions will be put on ELMS.

Course Description: The course is intended to provide an introduction to electromagnetic fields. Topics are in Chapters 21-30 of the textbook but all of the material in these chapters will not be covered. Topics to be covered include Coulomb's law, the electric field, Gauss' law, the electric potential, capacitors and dielectrics, current and resistance, DC circuits, the magnetic field, Ampere's and Faraday's laws, inductance, and the integral formulation of Maxwell's equations. The emphasis in the class

will be on understanding important physics concepts.

Homework: Assignments will be made on each Thursday and will be due the following Thursday. All homework problems, including due dates, will be posted on ELMS. Homework solutions should be uploaded as pdf files on ELMS and are due by the end of day on Thursday. There will be approximately 10-11 homework assignments. Late homework will be penalized 20% per day and will not be accepted past the Sunday after it is due. The lowest two homework scores will be discarded so a missing assignment will not hurt your grade.

Exams: There will be two midterm exams and a final exam. Before each exam I will post a sample example from a prior time when I taught this course. Prior to each exam we will also hold a review session on the material to be covered in the exam (time to be determined). My students typically find these review sessions very valuable so make every effort to attend. Don't worry about memorizing formulae. I will put together a sheet with relevant formulae for each exam.

Grading: Your course grade will be computed on the basis of 500 points awarded as follows:

Homework	100
1st midterm	100
2nd midterm	100
Final Exam	200

To ensure that one bad day will not control your grade I will eliminate your lowest score above (either the homework, a midterm score or half of the final). I will not assign grades for individual exams. At the end of the semester, I total your score and assign grades based on your knowledge of the material and your performane compared with other students.

General Comments: Physics is a cumulative subject; the knowledge learned at each stage builds upon previous knowledge Do not fall behind! If you find yourself in trouble, seek help. Attend the discussion sections and ask questions. Come to see me in my office (send an e-mail to make sure that I am available). Don't wait until just before the exam!