Physics 373 S19   Syllabus

Prerequisites: Phys 273 and Phys 274

Instructor: Professor Adil Hassam, AVW3307, 301-405-1417,   hassam@umd.edu

TA: John Martyn, johnmichaelmartyn@gmail.com

Class times: TuTh 2:00-3:15   Rm 1204 Toll Physics

Office Hours: TBD   You can also drop in at other random times.   Email me before to make sure I am in office.

Textbooks:
Mathematical Methods in the Physical Sciences, 3d Ed, by Mary L. Boas (required)
A Guided Tour of Math Methods for the Phys Sciences, by R. Snieder (optional extra reading)

Homework: There will be regular (roughly weekly) homework, consisting of Problem Sets with problems taken mostly from Boas. Solutions will be posted. Homework scores will count towards the final grade (see below). Homework should be turned in in class on the due date. If you cannot turn it in on the due date, turn in the homework directly to the TA within 24 hours of due date.   Late HWs after this 24 hour period will not be accepted, unless a documented health reason. The bottom HW score in your column will be dropped.

Exams: There will be 2 Midterms and a Final, all in-class exams. You are allowed to bring in one sheet of notes, double-sided, for the exams.   I will provide you with any necessary formulae.

Grading: The class final grade will be based on the Homework, 2 Midterms, and the Final. Each of these elements will contribute towards the grade, weighted according to HW : M1 : M2 : Final = 1 : 1 : 1 : 1 to 1.5. (the exact weight on the Final will be determined later)

Class Attendance: Attendance in lectures is very strongly encouraged. To a significant extent, I will follow the textbook. However, some topics will be covered differently, and my choice of emphasis on, and approach to, various topics will vary. Thus attendance is very important.

Course Content: The course is intended to provide a strong mathematical background for solving equations in physics. Topics to be covered will be found in Chapters 7, 8, 12, 13, 14 of Boas (Ch 14 will be covered first). The topics include Fourier series and Fourier and Laplace transforms, ordinary and partial differential equations, special functions and eigenfunction expansions, and complex analysis including the properties of analytic functions and complex integration. The emphasis will be on techniques which are useful to the practicing physicist.

Final Exam: TBA

Academic Integrity: The university has approved a code of academic integrity available on the web. The code prohibits students from cheating on exams, plagia- rizing papers, submitting the same paper for credit in two courses with- out authorization, buying papers, submitting fraudulent documents, or forging signatures. The university senate requires that students include the following signed statement on each examination or assignment: I pledge on my honor that I have not given or received any unauthorized assistance on this examination (or assignment). Compliance with the code is administered by a student honor council, which strives to pro- mote a community of trust on the College Park campus. Allegations of academic dishonesty may be reported directly to the honor council (301-314-9154) by any member of the campus community.