

## **PHZ 3113: Introduction to Theoretical Physics, Fall 2014**

### **Meetings:**

MWF 12:50 pm - 1:40 pm (period 6), at NPB 1220

### **Instructor:**

Khandker Muttalib; NPB 2140; Tel: 392-6699; Email: [muttalib@phys.ufl.edu](mailto:muttalib@phys.ufl.edu)

### **Office Hours:**

(tentative) MWF 11:45 am – 12:35 pm (period 5), at NPB 2140

### **Textbook:**

Mathematical Methods for Physics and Engineering, by K.F. Riley, M.P. Hobson and S.J. Bence, 3<sup>rd</sup> Ed., Cambridge University Press (2006).

*Other good reference books:*

(1) Mathematical Methods for Physicists, by G.B. Arfken and H.J. Weber, 5<sup>th</sup> Ed., Harcourt/Academic Press (2001).

(2) Mathematical Methods in the Physical Sciences, by M.L. Boas, 3<sup>rd</sup> Ed., Wiley (2005).

### **Homework and grading:**

There will be daily homework assignments, due at the beginning of each class. (For medical or other excused absences, see me for approval to submit late.) There will also be three in-class, closed-book exams. The total grade will derive 1/3 from homework and 2/3 from the three exams.

The final letter grades will be assigned according to the following criteria:

A:  $\geq 85\%$   
A-: 81 – 84 %  
B+: 77 – 80 %  
B: 71 – 76 %  
B-: 67 – 70 %  
C+: 63 – 66 %  
C: 57 – 62 %  
C-: 51 – 56 %  
D+: 47 – 50 %  
D: 41 – 46 %  
D-: 37 – 40%  
F:  $\leq 36\%$

### **Expectations:**

You are expected not to copy any homework solution from anyone else, and not to ask for help *until* you have tried hard to do it all by yourself. If you fail to do after sincere efforts, you are *encouraged* to get help from fellow class friends, instructor, or anyone else. You are also encouraged to form small study groups and discuss homework assignments, within the above rule. I expect *each* of you to submit *all* homework assignments; they are an integral part of the course. If for any reason you miss an assignment, see me immediately for approval to submit late with partial credit. The course will cover a lot of material, and you should be prepared to invest a substantial amount of time.

### **Outline (Tentative):**

8/25 – 9/26: selected review of calculus, vector analysis.

9/29: Exam 1

10/01 – 11/03: matrices, functions of a complex variable.

11/05: Exam 2

11/07 – 12/08: linear vector spaces and Fourier series, partial differential equations.

12/10: Exam 3

### **Academic Honesty:**

All University of Florida students are required to abide by the University's Academic Honesty Guidelines and by the Honor Code, which reads as follows:

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

Cheating, plagiarism, or other violations of the Academic Honesty Guidelines will not be tolerated and will be pursued through the University's adjudication procedures.