

Math/Phys 611 Math Physics Fall 2016

CRN: 74549/74990, 3 credits

MWF 10:30 – 11:30 AM in GRUE 204

Prerequisites: MATH 302 (ODEs), 314 (Linear Algebra), 421 (Applied Analysis) and 422 (Complex Analysis) or permission of instructor.

Web: www.dms.uaf.edu/~rybkin/

Office Hours: MWF 1:00-2:00 in Chapman 304B and by appointment.

Text: Lecture notes and Mathematical Physics, by E. Butkov, Chapters 1 – 15.

Course Description:

It is the first part of a two semester course continuing as Math/Phys 612 in the spring of 2017. In 611/612 we shall cover: functions of a complex variable, finite dimensional linear spaces, infinite dimensional spaces, generalized functions, linear ordinary differential equations of second order, special functions, Fourier series, Fourier transform, partial differential equations, Green's functions. Some other topics will be considered if time permits.

Homework:

Each week's assignment will be announced in class and will be typically (unless otherwise announced) due on Wed by 5:00 pm (specifics will be discussed later). No late homework will be accepted but I will pardon you from skipping one homework assignment.

You are welcome to collaborate on homework but final write-ups set up in LaTeX must be individual. If you receive significant help solving a problem, please make a note in your homework to give the person who helped you a credit. If you looked up a solution on line or elsewhere, please cite that source. There will be no penalties for being honest.

Homework Solutions

Each week, each of you will be responsible for presenting two high quality solutions for our solution key. Problems will be assigned at random. Submit your solutions to me by at 5:00 pm on Monday, i.e. two days before the assignment is due. I'll review your work and ask for changes and/or a meeting if needed. All solutions must be finalized no later than Friday. Participation in this exercise is included in your homework grade and is equivalent to another homework assignment.

Self-Grading

Each week, each of you will grade someone else's homework in a random fashion. Participation in this exercise will also be included in your homework grade as two homework assignments. Your grade for it will be based on the quality of your grading. The due date is the following Monday by 11:30 (i.e. it will be collected in class).

Midterm:

There will one take-home midterm. Specifics will be announced closer to that time.

Final Exam:

Will be a take-home final exam to be handed out in the last week of class. Specifics will be announced closer to the end of the semester.

Presentation:

Is optional for extra 5%. Please see me if you choose this option.

Grades: Are determined from:

Homework	40%
Midterm	25%
Final	35%

Course grades are determined as follows (in interval notation):

A+	(97,100]	B+	(87, 90)	C+	(77, 80)
A	(93, 97]	B	(83, 87]	C	(73, 77]
A-	[90, 93]	B-	[80, 83]	C-	[70, 73]
D+	(67, 70)	F	[0, 60)		
D	(63, 67]				
D-	[60, 63]				

Borderline cases will be graded up or down based upon your overall performance.

Withdrawals: I reserve the right to withdraw you if your average is 55% or less by the deadline for withdrawal.

University and Department Policies: Your work in this course is governed by the UAF Honor Code. Visit www.uaf.edu/dms/policies/ for the Department of Math and Statistics specific policies on incompletes, late withdrawals, and early final exams.

Disabilities Services: The Office of Disability Services implements the Americans with Disabilities Act (ADA). Please contact the Office of Disabilities Services (203 WHIT, 474-7043) to set up any necessary accommodations.