Methods of Mathematical Physics 204 A-B, Fall 2017 & Winter 2018

- Course Description -

Instructor: Nemanja KALOPER
Locus: 509 Physics, phone: 554-1220 (voicemail active), email: nkaloper@ucdavis.edu.
Class meets: 11:40 AM - 1:00 PM Monday and Wednesday, at 185 Physics.
Office hours: 1:00 - 1:45 PM, Monday and 2:00 - 2:45 PM, Tuesday, at 509 Physics.
TAs: Teresa Hamill, thamill@gmail.com: office hours: Th, F: 2 - 2:45 PM; Morgane Konig, mkonig@ucdavis.edu; office hours: M, W: 2 - 2:45 PM.

Textbook:

Supplementary texts:
Intro level: M. Boas.
Similar level: Butkov, Riley et al, books by Ruell Churchill.
More advanced: Matthews & Walker, Courant & Hilbert, Morse & Feschbach, Whittaker & Watson.

Additional reading: lots of classical math physics; useful theoretical physics books include Landau & Lifshitz and Born & Wolf.

Style of instruction and grading:

THIS IS NOT A COURSE ON MATHEMATICS. Occasionally we will sacrifice mathematical rigor for physical intuition and clarity. We will follow the material from the textbook as closely as we can. Some departures will occur. The grading will be based on the final, a midterm and homeworks (there may be up to 6-7 homework sets in the course of the class), which will be due in a week after they are given, unless arranged otherwise with the instructor. Tests will be OPEN BOOK & NOTES. Grade distribution: HW 30 %, Mid 30 %, Fin 40 % (Final will be comprehensive).
- Syllabus -

- Linear Algebra, Differential Equations, Fourier series, Distributions, Complex functions, Special functions, Sturm-Liouville. Additional topics may be added depending on time. Note: this is NOT a class in PROGRAMMING. I want to see YOU compute, not your PC (or your Mathematica program).

Disclaimer: I do not always specify every little legalistic detail about grading and such, but adjust to the situation at hand. This does not mean that the grading policies should be interpreted too liberally.