Physics 424  
Spring Quarter 2014  
Course Syllabus

Instructor: Robert Echols, rechols@calpoly.edu, 756-2656, www.calpoly.edu/~rechols

Office Hours: MWR 12:10-1:00 p.m., T 10:10-11:00 a.m., and W 4:10-5:00 p.m. in my office, 180-606

Schedule: M, W, and F 11:10-12:00 noon in 53-213


And numerous other texts on Theoretical or Mathematical Physics

Tentative Course Outline:
Chapter 5: convergent and asymptotic series
Chapter 6: complex variables and Laurent expansions
Chapter 7: calculus of residues, Laplace method and the method of stationary phase
Chapter 9: partial differential equations, Green’s functions and the Dirac Delta function
Chapter 10: Sturm-Liouville theory (or Quantum Mechanics)
Selected topics from chapters 8, 11, and 12: the gamma function, Bessel functions, Legendre functions and spherical harmonics.

Homework:
As you know working physics problems is critical to understanding the material. I encourage you to discuss solutions of problems with each other and myself but I expect that the homework you hand in to be individually prepared. In fact, I strongly recommend reworking a problem by yourself (if you did obtain assistance from me or another student) without looking at any previous work you have completed (or the text) to make sure every aspect of the problem is understood.

Exams and Quizzes:
We will be having two exams and a comprehensive final exam. One of the exams will probably be take home.

Grading:
Your final grade will be based on your overall performance in the class with the following approximate percentages: exams (20/25% each), homework (20%) and the final exam (40-30%).