

PHY407 Fall 2015

Lecture/Pre-lab/Lab Schedule, Updated 2015-09-11

Week	Date	Text ch	Lab topic
01	S 14-18	2-3, 4.3	Intro to python and programming, pseudocode
02	S 21-25	4, 5.1-5.3	Numerical errors, integration techniques: trapezoid rule, Simpsons rule, errors on integrals, choosing #steps
03	S 28-O2	5.5-5.11	Gaussian quadrature, infinite ranges, multiple integrals, derivatives, interpolation
04	O 5-9	6	Solving linear & nonlinear systems: Gaussian elimination, pivoting, LU decomp, eigensystems, QR, relaxation, binary search, Newton's method, secant method, golden ratio search
05	O 13-16 (No lecture, lecture will take place in lab slot)	7	Fourier Transforms: DFT, 2D DFT, FFT
06	O 19-23	8	ODEs:
07	O 26-30	8	ODEs:
08	N 2-6	9	PDEs:
09	N 11-13 (No Monday lecture, lecture will take place in lab slot)	9	PDEs:
10	N 16-20	10	Random Processes
11	N 23-27	11	Monte Carlo techniques
12	N 30-D4	12	Term Project
Extra	D7 and D9		Lectures scheduled but probably not held.