

ApSc608 Math and Computational Methods II  
Spring 2018 Syllabus  
Dr. Silva

1. Partial Differential Equations (PDEs)
2. Transform Methods (Fourier, Laplace)
3. Fast Fourier Transform
4. Numerical Solution of PDEs
5. Random Processes (Monte Carlo, Markov Processes)
6. Miscellaneous Topics (Wavelets, Neural Networks,...)

Texts:

1. An Introduction to Partial Differential Equations with MATLAB, 2nd Edition, Matthew P. Coleman
2. Partial Differential Equations for Scientists and Engineers by Stanley J. Farlow

Grading

Homework	40%
Projects	10%
Mid-Term (Take Home)	20%
Final Exam (Take Home)	30%