AMATH 561

Introduction to Probability and Random Processes

AMATH 561 is the first course in a new three-quarter sequence (AMATH 561-562-563) on probability, stochastic processes and model uncertainty. Specific topics likely to be covered in AMATH 561 include:

1. Review of Probability and Random Variables,
2. Information and Conditioning,
3. Generating and Characteristic Functions,
4. Discrete time Markov Chains,
5. Continuous time Markov Chains,
6. Convergence of Random Variables,
7. Brownian motion.

Students who took AMATH 572 in the Spring of 2016 should *not* take AMATH 561, as the two courses are very similar. Because of the significant overlap, PhD students will not be able to count both AMATH 572 and AMATH 561 towards the department requirement of 500-level numerically graded courses in Mathematics, Applied Mathematics, or Statistics. Students who have taken AMATH 572 in the Spring of 2016 will have the background necessary to take AMATH 562 if they choose to do so.