

**Math for Intelligent Systems - Fall 2017 - Approximate Calendar**  
**September 13, 2017**

Month	Monday	Wednesday	Friday
<b>September</b>	11 <b>HURRICANE</b>	13 <b>HURRICANE</b>	15 Determinants Numerical Issues Topics for Test 1
	18 Answer Questions Probability Distributions	20 <b>Test 1</b> Random Variables	22 Go over Test 1 Probability Distributions
	25 Probability Distributions Discrete Random Variables Bernoulli Trials Binomial and Multinomial	27 Continuous Random Variables Univariate Gaussians Expectations and higher order moments(EXHOM)	29 Multivariate Gaussians
<b>October</b>	2 Gaussians and SPDM	4 Dirichlet/Multinomial Topics for Test 2	<b>6 Holiday - Homecoming</b>
	9 Bayes Conjugate Priors Examples	11 Answer Questions	13 <b>Test 2</b>
	16 Lagrange Multipliers, KKT	18 Maximum Likelihood Estimation (MLE)	20 MLE, Bayes
	23 Bayes	Maximum <i>A-Posteriori</i> (MAP)	Examples
<b>Oct/Nov</b>	30 Examples	Mixture Models	Mixture Models
<b>November</b>	6 Review	8 <b>Test 3</b>	<b>10 Holiday - Veterans Day</b>
	13 Go over Test 3	15 Shannon's Entropy	17 Shannon's Entropy KL-divergence
	20 Mutual Information	<b>22 Holiday - Thanksgiving</b>	<b>24 Holiday - Thanksgiving</b>
	27 Examples	29 Renyi Entropy	1 Fisher Information
<b>Dec</b>	4 Review	<b>6 Test 4</b>	