

Class	Module	Topic
1	Counting	Counting (permutation and combinations)
2		Pigeon hole Principle and Inclusion Exclusion Principle
3		Permutation and Combination with repetition
4	Basics of Probability	Probability axioms
5		Sample Space and Events
6		Different Types of Events
7	Conditional Probability	Conditional Probability
8		Law of Total Probability
9		Baye's Theorem
10		Baye's Theorem(Continued)
11	Descriptive Statistics	Mean, median, mode, variance and standard deviation
12		Correlation and Covariance
13	Random Variable	Random Variable
14		Discrete Random Variable
15		Continuous Random Variable
16		Expectation and Variance of Discrete Random variable
17		Expectation and Variance of Continuous Random variable
18		Properties of Expectation and Variance
19	Joint Random Variable	Joint Probability (Discrete)
20		Marginal Probability (Discrete)
21		Conditional Probability (Discrete)
22		Joint Probability (Continuous)
23		Marginal Probability (Continuous)
24		Conditional Probability (Continuous)
25		Expectation in JRV
26		Variance in JRV
27		Covariance in JRV
28		Correlation in JRV
29		Conditional Expectation and Variance
30		Multivariate Distribution
31	Probability Distributions	Discrete Uniform and Bernoulli Distribution

32		Geometric Distribution
33		Binomial Distribution
34		Poisson Distribution
35		Continuous Uniform Distribution and Exponential Distribution
36		Normal Distribution
37		Standard Normal Distribution
38		Standard Normal Distribution (Continued) and T distribution
39		Practice Problems
40	Inferential Statistics	Basics of Statistics
41		Central Limit Theorem for mean
42		Central Limit Theorem for sum
43		Confidence Interval
44		Hypothesis Testing
45		Z-Test (One tailed)
46		Z-Test (Two tailed)
47		T-test
48		T-test (Continued)
49		Chi-Squared Test
50		Chi-Squared Test for feature Selection