Basic Statistics

• Types of Statistics

• Cases, Variables, Types of Variables

• Matrix and Frequency Table

• Graphs and Shapes of Distributions

• Understanding Central Tendency

• Mode, Median and Mean

• Range, Interquartile Range and Box Plot

• Variance and Standard deviation

• Z-scores

• Skew

• Kurtosis

• Working with outliers

• Contingency Table, Scatterplot, Pearson’s r

• Elementary Probability

• Random Variables and Probability Distributions

• Normal Distribution, Binomial Distribution & Poisson Distribution

Inferential Statistics

• Observational Studies and Experiments

• Sample and Population

• Population Distribution, Sample Distribution and Sampling Distribution

• Central Limit Theorem

• Point Estimates

• Confidence Intervals

• Introduction to Hypothesis Testing

• One tailed tests

• Two tailed tests