

## Course Content

1. Accounting Fraud Detection
  - A. First Digit Benford's law
  - B. Second order Benford's law
  
2. Circular trade detection using graph clustering
  - A. K-Spanning tree clustering
  - B. Shared nearest neighborhood clustering
  - C. Edge-betweenness clustering
  - D. Spectral clustering
  
3. Detecting return manipulation using clustering
  - A. K-Means clustering
  - B. Spectral clustering
  
4. Trust ranking algorithm
  
5. Detecting return defaulters using cost sensitive deep learning methods

### Requirements (Not mandatory)

1. Basic linear algebra
2. Basic graph theory
3. Introduction to machine learning algorithms