**Syllabus: FRE7261**

**News Analytics**

The fast-growing field of news analytics, convergence of communication and computing, and rapid growth of databases, require fast computation, and robust statistics to transform news (text and speech) into useful and actionable information for trading and risk management. The course presents the statistical foundation of Natural Language Processing (NLP) together with the application of data mining techniques such as Clustering (unsupervised learning) and Discriminant Analysis (supervised learning), or Naive Bayes Model to Text Processing in order to develop trading and risk management strategies such as establishing “stop-loss” or “take profit” limits. The emphasis of the course is on analyzing news in Text format (time permitting Speech Processing). It also introduces the tools and techniques for sentiment analysis.

The examples are from financial markets and different asset classes such as Equity, Fixed Income, Foreign Exchange.

Students will be introduced to Python NLTK (Natural Language Processing Tool Kit)

 There will be regular homework (35% of final grade) a short midterm (10% of final grade) and a final