The Art and Science of Business Analytics- 95-872

Course Overview

Use of analytics is rapidly transforming managerial decision making and firms are starting to leverage analytics in the various functional areas of business to improve data-driven decision making. However, many firms are still unable to use data and analytics as a bridge between strategic themes and operations. While performance management systems are prevalent, their focus is primarily historical and they require the integration of a wide variety of data to track measures that may not be strategically relevant. Moreover, getting organizations to adopt emerging Big Data technologies to generate forward-looking analytics requires new technical and analytic skills that many organizations have not traditionally possessed. The aim of this mini-course is to understand what it takes for companies to successfully leverage data and analytics to become more customer-centric while driving improved business results while also providing opportunities for hands-on learning.

Learning Objectives

- Introduce a framework for understanding what it takes for companies to successfully leverage data and analytics for competitive advantage
- Understand how to develop strategies for building out strategic data and analytics capabilities
- Provide an overview of the key analytics techniques – from both a mathematical and data/technology perspective
- Explore various analytic techniques and how they can be applied across the value chain of a company’s business operations
- Introduce Big Data concepts and outline how Big Data is transforming how companies are approaching analytics
- Outline a reference architecture for enterprise data management that spans both traditional data warehousing and Big Data techniques

Case studies will supplement the discussion of these topics. Students will learn to use SPSS Modeler for case studies and final project.

Pre-requisites: 95-703 (Database management), 95-796 (Stats for IT managers) or Instructor permission