

BUSINESS ANALYTICS (BYGB)

BYGB 7811. Finance Analytics Internship. (3 Credits)

Financial planning and analysis to consolidate disparate data sources.

BYGB 7967. Data Mining for Business. (3 Credits)

Discusses data mining techniques and their use in strategic business decision making. A hands-on course that provides an understanding of the key methods of data visualization, exploration, association, classification, prediction, time series forecasting, clustering, induction techniques, neural networks, and other methods. Students work in teams on solving a business problem of their choice, using data mining tools and applying them to real data.

BYGB 7973. Database Management. (3 Credits)

Covers the basics of database management, a critical element of all IT organizations. Databases are the foundation for operational/transaction systems and for management decision-making. Topics include types of databases and the database environment, database analysis and data modeling, database design with relational models, implementation issues such as SQL, data administration, the Internet database environment and distributed databases.

BYGB 7975. Bus Analytics for Managers. (3 Credits)

Introduces the concepts of business analytics and such related concepts and techniques as business intelligence, data analytics, data warehousing, data-mining and online analytical processing (OLAP). The course explores the process, contents, and context of managerial decision-making and looks at how business analytics can help in improving management decision-support effectiveness in the various functional areas of business such as marketing, finance and manufacturing. Managers in general—not just IT professionals—stand to gain from the discussion. Students gain hands-on experience in the use of a comprehensive set of Business Intelligence (BI) tools.

BYGB 7977. Text Analytics. (3 Credits)

The course introduces the concepts of text analytics, unstructured information analysis and management for better decision making by deriving valuable insights from your enterprise content regardless of source or format. It allows deep, rich text analysis of information. Content analytics can help organizations surface undetected problems, fix content-centric process inefficiencies, improve customer service and corporate accountability, reduce operating costs and risks and discover new revenue opportunities. Student groups will implement a comprehensive content analytic project (SPSS Text Analytics/Content Analytics 2.0/UIMA).

BYGB 7978. Web Analytics. (3 Credits)

Web analytics is the science of accessing and analyzing the vast swaths of Internet data to create business value. Typical data types include user queries in search engines, discussion threads in online forums, chats in social media, transactions on e-commerce platforms, and website usage logs. This course also covers two core components of web analytics in modern businesses. First, you build skills that extract and integrate data from online sources for actionable business insights. Second, you learn conceptual and hands-on approaches to analyzing web content, structure, and usage, including how search engines work, how online marketing web works, and how to model and analyze population-scale networks. You will use Python throughout the course and become proficient in Google Analytics.

BYGB 7988. Bus Perf Mgmt Risk Analytics. (3 Credits)

This course aims to develop a good understanding of knowledge required and techniques available to enable managers to measure and manage business performance within their organization. The role of business analytics in enabling business performance and risk management is emphasized. The application of analytics to such concepts as balanced scorecard strategy maps, KPI, corporate metrics, corporate governance information communication and dissemination, compliance and regulation assessment and reporting and information assurance is hallmark of this course. The social, ethical, and behavioral dimensions of the role of technology in analytics and performance management are discussed. Students will work on case studies and also engage in a capstone project involving analytics with a tool such as Cognos Insights.

BYGB 7990. Big Data Analytics. (3 Credits)

As organizations today generate and store massive amounts of data, they face the key challenge of analyzing the data to gain key insight to make informed decisions. Traditional relational models of data storage and use appear to be ill-suited for these large data sets. Alternative distributed, cloud-based approaches have emerged to handle these big data sets. Frameworks such as the Hadoop platform including the Hadoop Distributed File System (HDFS) and MapReduce (M/R) framework at its core, allows for distributed processing of large data sets across clusters of computers using the Map and Reduce programming model. It is designed to scale up from a single server to thousands of machines, offering local computation and storage. This exploratory course discusses the contemporary topic of big data analytics and introduces Hadoop and related technologies in an introductory fashion. Topics include big data analytics life cycle, technologies, development and management, privacy and security, governance, examples and others. Students will work on workshops and assignments in Hadoop on the Amazon Web Services cloud.

Prerequisite: BYGB 7967.

BYGB 8999. Tutorial. (3 Credits)

Tutorial in Business Analytics.