Graduate Certificate in Business Analytics

THE UNIVERSITY OF TENNESSEE CHATTANOOGA
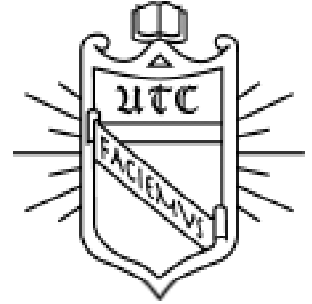## COLLEGE OF BUSINESS

Program Overview

The graduate certificate program in Business Analytics is a post-baccalaureate program offered to both degree seeking and non-degree seeking students. The program emphasizes and provides technical knowledge of basic business analytics concepts, database management, advanced queries and reports, SAS skills, and advanced data analytics. The certificate program covers basic and advanced statistical and quantitative analysis, exploratory and predictive models, and fact-based management to generate knowledge and drive decisions and actions. This program also prepares students toward SAS Base Programmer and SAS Advanced Programmer certification exams.

Program Features

Business Analytics students will be prepared to meet the demand of local businesses for data savvy professionals. The UTC College of Business Analytics program features:
• SAS Certification and program co-sponsorship by SAS, the gold standard of business analytic software systems.
• Curriculum based on best industry practices and strong data analytics programs around the country.
• A balance between data management systems and data analysis.
• A hands-on approach and real world projects with real data sets.
• A part-time program that takes two semesters to complete. (It begins in the fall with MGT 5140 & MGT 5190 and culminates the following spring semester with MGT 5180 & MGT 5200.)

Specific Skills

The Business Analytics Certificate program teaches: Statistical Modeling, Decision Modeling, Database Management Systems, Integrating Databases with Spreadsheet Modeling, Data Warehousing/OLAP, Balanced Scorecard, Web Analytics, Decision Trees, Neural Networks, Clustering, and Market Basket Analysis.

Admission Requirements

Individuals will be admitted to the Certificate in Business Analyticals program if they meet the admission requirements of UTC's Graduate School (bachelor degree in any discipline from an accredited university with 2.7 GPA or better or 3.0 GPA in final 60 hours) and have satisfied the prerequisite, MGT5710 (Business Statistics). This

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Required Certificate Courses

MGT5140: Databases and Data Warehouses (3 credits)
This course covers database, data warehousing, and SQL concepts and offers practical recommendations for using these tools for data extraction, transformation, and loading (ETL).

MGT5180: Prescriptive Analytics (3 credits)
This course covers a survey of optimizations and decision making techniques and offers practical recommendations for using these tools for operational business intelligence.

MGT5190: Data Mining & Analytics (3 credits)
This course provides an introduction to the field of business intelligence and analytics. The focus of this class is hands-on learning of how to use statistical techniques to solve business problems. It covers extensive use of data, quantitative analysis, exploratory and predictive models, and fact-based management to generate knowledge and drive decisions and actions. The use of key performance indicators, dashboards and scorecards for performance management and opportunity assessment are also addressed. This course expands on probability and statistical concepts, statistical modeling, and experimental design. This class uses real-life data project and SAS Enterprise Guide.

MGT5200: Advanced Data Analytics (3 credits)
This course covers advanced topics related to data analytics applications in the context of organizational information systems such as Enterprise Resource Planning, Customer Relationship Management, and Supply Chain Management. Topics include data manipulation, data exploration, neural networks, decision trees, cluster analysis, correlation, and predictive modeling. The focus of this course is hands-on learning of how to use statistical and algorithm-based techniques to solve business problems. The course uses real-life data project and SAS Enterprise Miner.

www.utc.edu/analyticscertificate