

BUSINESS ANALYTICS GRADUATE CERTIFICATE PROGRAM

Program Overview

Rider's Graduate Certificate program in Business Analytics helps business professionals, with no prior background in statistics or business analytics, to develop the skills and gain the knowledge of the technologies, applications and processes used by organizations to analyze data and drive their decision making across all aspects of business.

Redesigned with the valuable input of executives in the analytics field, this certificate takes a hands-on, business approach to analytics and exposes students to a variety of software from Tableau and Excel to Rapidminer and Python.

Curriculum Overview

The Business Analytics Graduate Certificate consists of 15 graduate credits that can be completed in one year on a part-time basis. The classes are highly applied in nature, integrating project-based learning, simulations, and case studies. Students learn both the technical and management sides of business analytics to harness the power of this critical tool in both operational and strategic decision making. There is one foundation course in statistics (PMBA 8051) which must be satisfied before starting on the core of the certificate.

Completion of the Certificate

To complete this certificate program, students must meet the following requirements:

- Overall GPA of 3.0 in the Business Analytics Certificate Program; and,
- Cannot have any grades below a "C".

Current MAcc, MBA or MS-IS students at Rider

Current grad business students can work the Business Analytics Graduate Certificate Program into their graduate degree program. Please contact the dean's office to plan how the Business Analytics Graduate Certificate will fit into your graduate program.

Certificate Awarded:

- Business Analytics Graduate Certificate

Contact

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Program Website: Business Analytics

Associated Department: Norm Brodsky College of Business, Graduate Programs (<http://www.rider.edu/academics/colleges-schools/college-business-administration/graduate-business-programs/>)

Business Analytics Graduate Certificate Program Requirements

(15 credits)

Foundation Course for the Program

Students must demonstrate proficiency in statistics by satisfying ONE of the following conditions before they can move into the main requirements of the program:

- Earn a grade of "B" or better in course work equivalent to Rider's MSD 205 Business Statistics and BDA 201 Introduction to Business Analytics at an accredited four-year institution within six years prior to the semester admitted; OR
- Complete PMBA 8051 Fundamentals of Statistical Analysis with a grade of "B" or better; OR
- Take the proficiency exam for PMBA 8051 and pass with a grade of 80% or better. Student must have approval from the Dean's Office in order to use this option.

Core Curriculum

Code	Title	Credits
PMBA 8351	Business Analytics Fundamentals ¹	3
PMBA 8312	Business Intelligence Tech-Data Mining	3
PMBA 8317	Applied Data Management for Business Users	3
PMBA 8355	Visual Analytics ²	3
PMBA 8358	Data-Driven Strategies for Business	3
Total Credits		15

1

PMBA 8351 is a prerequisite for PMBA 8355 and PMBA 8358.

2

PMBA 8355 is waived for students who have taken BDA 205 or equivalent in which case a substitution will be made using another PMBA class approved by the department.

Certificate Completion

To complete the BA Certificate Program, students must meet the following requirements:

- Overall GPA of 3.0 in the Business Analytics Certificate Program;
- Cannot have any grades below a "C".

Business Analytics Graduate Certificate Program Policies

Admission

To be admitted to the Business Analytics Graduate Certificate Program, students must meet the following requirement:

Completion of at least a bachelor's degree or equivalent from an accredited institution of higher learning with a GPA of 3.0 or better.

Certificate Completion

To complete the BA Certificate Program, students must meet the following requirements:

- Overall GPA of 3.0 in the Business Analytics Certificate Program;
- Cannot have any grades below at “C”.

Courses and Descriptions

PMBA 8051 Fundamentals of Statistical Analysis 3 Credits

Covers basic statistical techniques useful in business decision making. Includes descriptive statistics, event probability, random variables, sampling distributions, regression analysis and topics in statistical inference.

PMBA 8312 Business Intelligence Tech-Data Mining 3 Credits

In this course, students will learn to solve problems/exploit opportunities by processing datasets, interpreting results, and deploying solutions. This course provides hands-on experience with these tasks. Upon this base of experience, students will build a robust data mining methodology that can be applied to real-world investigations. The course of study will include Online Analytical Processing (OLAP), statistical and machine learning techniques, and unstructured text analysis. Students will learn to apply these techniques through the study of payroll, procurement, and expense report fraud. Cell phone and credit card fraud, credit and bankruptcy analysis, and customer relationship management will also be covered.

PMBA 8317 Applied Data Management for Business Users 3 Credits

Learn the benefits of data sharing in a business organization, the benefits of the relational database model, how data is structured in a relational database model, and how data can be accessed in a relational database using the structured query language (SQL). The process of formatting, loading, and accessing data for data analytics will be shown as well as the interaction with data warehouse schemas such as the star schema and snowflake scheme.

PMBA 8351 Business Analytics Fundamentals 3 Credits

This course introduces (i) data analysis tools that are appropriate for generating useful information for decision-making and (ii) a framework for analyzing decisions based on partial information. Examples from financial analysis, marketing, and operations management are used to illustrate applications of the topics covered. Microsoft Excel and associated add-ins are used for the purpose of analysis. Students who have earned credits for CIS 350 or equivalent cannot take PMBA 8351 for credit.

Prerequisite(s): PMBA 8051.

PMBA 8355 Visual Analytics 3 Credits

This graduate course will equip the students with the fundamental skills to perform visual analytics with Tableau. Specifically, students will learn how to prepare a dataset for visual analysis, and how to “tell a good story” using basic and advanced visualizations. At the completion of this course, students will be able to apply best visualization practices and create effective visualizations to convey analytical insights to a business audience. Students who have earned credits for BDA 205 or equivalent cannot take PMBA 8355 for credit.

Prerequisite(s): PMBA 8351.

PMBA 8358 Data-Driven Strategies for Business 3 Credits

In this course, several real-world business problems will be presented as case studies for the application of descriptive, predictive, and prescriptive analytics. Relevant business areas for these problems include online recommendations, healthcare, sports management, marketing, and revenue management. Through these business case studies, students will (1) define a real-world problem in the context of business analytics (2) develop hands-on experience on implementing analytics methodologies (3) learn to derive and communicate insights from analytics results and (4) practice the formulation of data-driven strategies.

Prerequisite(s): PMBA 8051, PMBA 8351.