
THE GEORGE WASHINGTON UNIVERSITY

WASHINGTON, DC

Certificate in Business Analytics

Institute for Integrating Statistics in Decision Sciences, (I²SDS), School of Business

The 21st Century belongs to those who can think and act analytically. No longer is it good enough to make business decisions, no matter what the field, based on little more than feelings or gut reactions to events. Consumer products companies, insurance companies, banks, governments, and even sports teams are turning to Analytics to improve their bottom line and ensure their survivability in this age of hyper-competition and increasingly severe externalities.

The Business Analytics Certificate Program is designed to provide excellent grounding in Analytics, a critical component of 21st century business careers, whether the practitioner's primary responsibility is in a functional area (Marketing, Operations, Finance, Strategy, International Business, Human Resources), or a vertical such as Health Care or Tourism.

The need for graduates with a strong analytical background has never been higher. Companies such as IBM, the U.S. Government, and many of the Washington area's top employers are in demand for personnel with expertise in the traditional MBA domains, but with knowledge of analytical methods. Even in these challenging times, employment rates for those with these skills remain high.

If your passion is to succeed in the 21st century in business or government, the Certificate Program in Business Analytics is the place to start!

Learning Goals for the Certificate Program

- Understand how Analytics can help improve decisions throughout an organization's value chain.
- Understand the different forms of Analytics (Descriptive, Predictive, and Prescriptive) and develop a good understanding of the methods used in each.
- Develop hands-on experience with Analytical tools that are widely used in practice.

Certificate Pre-Requisites

- Students should have completed MBAD 6224 or its equivalent courses (such as a combination of DNSC6221 and 6222, or DNSC6202) prior to enrolling in any of the certificate courses. Other equivalent courses may be substituted with prior department approval.
- Students should have received a grade of 'B' or better in their MBAD6224 or equivalent coursework to be eligible for the certificate.

Certificate Requirements

To receive the Certificate in Business Analytics upon graduation, students should fulfill the three components listed below:

1. Coursework

Students should complete 9 credit hours of coursework comprised of the following courses:

- Introduction to Business Analytics (DNSC6201, 1.5 credits, Fall Semester)
- Data Mining (DNSC6279, 3 credits, Spring Semester)
- Forecasting for Analytics (DNSC6209, 1.5 credits, Spring Semester)
- Optimization Models for Decision Making (DNSC6251, 1.5 credits, Fall and Spring Semesters*)
- Choose 1.5 credits from the following list of electives:
 - Pricing and Revenue Management (1.5 credits)
 - Supply Chain Risk Analytics (1.5 credits)
 - Marketing Metrics (1.5 credits)
 - Sports Analytics (1.5 credits)
 - Social Network Analytics (1.5 credits)
 - Other electives TBD (please seek department approval for electives not listed here)

Student must receive a grade of 'B' or better in all coursework to be eligible for the certificate.

2. Project or Equivalent: Complete one of the below options (A, B, or C).

- A. For an organization of your choice, apply the analytic assessment criteria as presented in **Competing in Analytics (Davenport & Harris)** to evaluate its current stage of analytic competency. Develop an analytical roadmap with concrete recommendations for this organization outlining how it could enhance its competitive position by applying analytics. This project will be completed in the Introduction to Business Analytics course.
- B. An additional analytics related course in Decision Sciences (or a related field) may be taken in lieu of a project. The course must be pre-approved by a faculty member in Decision Sciences, and students must receive a grade of 'B' or better in the course.
- C. Students may choose to work with a faculty member on a well-structured project of their own design related to analytics. Prior approval by a GWSB faculty member is required.

3. Attendance at BA Seminars

Attend at least two Business Analytics seminars and submit write-ups describing what you learned. Seminars are offered regularly by the Department of Decision Sciences, I2SDS, and the IBM Analytics Solutions Center.

<http://www.gwanalytics.org/certificate/>

<http://www-304.ibm.com/industries/publicsector/us/en/rep/!/xmlid=197406>

For questions, please contact analytics@gwu.edu.

* Registration for DNSC6251 in any semester other than Fall is managed by the Master of Science in Project Management program. Please email mspminfo@gwu.edu for registration information.