

BUSINESS ANALYTICS AND INTELLIGENCE, MBUSAI

Degree: Master of Business Analytics and Intelligence (MBusAI)

Program Overview

Weatherhead's business analytics and intelligence 16-month curriculum plan is a full-time, 36-credit-hour, lockstep program designed to advance skills to drive key business decisions and solutions. We leverage applications in Marketing and Operations however, the skills gained will be useful across all functions and industry sectors.

The curriculum includes three interlocking models the Business Core, the Analytics Core, and the Applied Business Analytics courses. Students study cutting-edge analytics using real-world data from industry partners to develop skills in extracting insights from analytics for business solving.

Through internships, one-on-one mentorships, and professional networking events throughout the year, students interact with industry partners to develop business connections needed to thrive upon graduation.

Learning Outcomes

- Students demonstrate knowledge of analytical tools
- Students demonstrate communication skills
- Students are effective in extracting data driven insights

Program Requirements

The Master of Business Analytics and Intelligence degree is a 16-month, 36-credit-hour, full-time program for students interested in learning advanced data analytics skills for application in general business areas, focusing specifically on both marketing and operations. The program prepares students to analyze big data for smart insights for executive decision making. The program includes three interlocking modules:

- Business core (10.5 credit hours),
- Analytics core (13.5 credit hours)
- Applied Business analytics (12 credit hours)

The **Business Core** provides students with a holistic understanding of the underlying business context necessary for succeeding in any industry. The **Analytics Core** equips students with general data handling, data presentation and analysis skills. The courses in **Applied Business Analytics** build from these general skills to improve the students' ability to make decisions in the two focus application areas: marketing and operations.

The overlapping areas emphasize our program's goals:

- Learning the language of business
- Building analytical skills
- Applying appropriate analytical tools to today's business data

The program is delivered through a range of open source and commercial statistical software (e.g., R, Python, SPSS, SAS), preparing students

with the necessary user expertise to excel in analyst positions across industries.

Prerequisites

Students are required to have taken two calculus courses at the college level and one course in linear algebra. Students who do not satisfy linear algebra prerequisites will be required to take a one credit preparatory course. A course in statistics is strongly preferred.

Sample Plan of Study

First Year

Fall		Hours
BUAI 406A	Operations Management I	1.5
BUAI 407A	Managerial Marketing I	1.5
BUAI 433	Foundations of Probability and Statistics	3
BUAI 434	Data Mining & Visualization	3
BUAI 444	Predictive Modeling	3
BUAI 492	Foundations of Python Programming	1.5
Hours		13.5

Spring

BUAI 406B	Operations Management II	1.5
BUAI 407B	Managerial Marketing II	1.5
BUAI 410		3
BUAI 432	Operations Analytics: Stochastic	3
BUAI 445	Advanced Marketing Analytics	3
BUAI 485B	Team Development	1.5
Hours		13.5

Second Year

Fall

BUAI 411	Operations Analytics: Deterministic	3
BUAI 435	Marketing Models and Digital Analytics	3
BUAI 446	Machine Learning and Artificial Intelligence in Business Analytics	3
Hours		9
Total Hours		36