Program Viewbook

Master of Science in Business Analytics (MScBA)

Program Description

The Master of Science in Business Analytics (MScBA) program provides students with advanced knowledge of business analytics theories, methods, and tools to address complex organizational and industry challenges. The curriculum emphasizes on data-driven decision-making, sustainable business solutions, and the ethical use of analytics in line with global regulatory frameworks. Students gain the ability to apply advanced techniques and emerging technologies to generate actionable insights, evaluate complex datasets, and design innovative strategies that improve business performance. The program also strengthens communication and leadership skills, preparing graduates to present analytical findings effectively to both technical and non-technical audiences and to collaborate within multidisciplinary teams. Lifelong learning is encouraged to ensure adaptability to evolving trends in analytics and technology. To demonstrate autonomy in research and problem-solving, students complete either a Dissertation or an Applied Research Project after fulfilling core course requirements.

Graduates of this program are prepared for careers such as Business Intelligence Analyst, Data Scientist, Data Manager, Chief Analytics Officer, Chief Operations Analyst, Information Architect, and Data Modeler across sectors including finance, healthcare, technology, retail, and government.

Program Learning Outcomes (PLOs)

PLO 1: Demonstrate advanced knowledge of business analytics theories and methodologies to address complex industry challenges.

PLO 2: Apply cutting-edge analytics techniques and tools for sustainable business solutions.

PLO 3: Articulate complex business insights persuasively to technical and non-technical stakeholders.

PLO 4: Develop innovative entrepreneurial strategies by critically evaluating data-driven insights to enhance business performance.

PLO 5: Implement data governance and ethical principles to ensure compliance with global regulatory standards.

PLO 6: Perform effectively as a leader or a team member in multidisciplinary settings leveraging emerging technologies to achieve strategic outcomes.

PLO 7: Engage in lifelong learning to anticipate and adapt to evolving business analytics challenges and trends.

Program Completion Requirements

The Master of Science in Business Analytics (MScBA) degree shall be awarded to a student who is officially enrolled in the program and has fulfilled the following requirements:

- Successful completion of 30 credit hours.
- Achievement of a minimum cumulative GPA of 3.0 on a 4.0 scale.
- Completion of at least 75% of total program credit hours at CUD.
- Completion of the Dissertation or Applied Research Project while enrolled at CUD.

Program Structure

Core Courses	**18 Cr. Hrs.**
Electives	**06 Cr. Hrs.**
Dissertation or Applied Research project	**06 Cr. Hrs.**
Total	**30 Cr. Hrs.**

List of Courses

I. Core Courses

Course			Pre/Co-requisite	Cr. Hrs.
				30
MBN	601	Data Management and Visualization	None	3
MBN	602	Statistics for Data Analytics	None	3
MBN	603	Programming for Data Analytics	None	3
MBN	604	Information Assurance	MBN 601	3
MIT	621	Data Sciences	None	3
MIT	622	Data Analytics for Managers	MIT 621	3

II. Elective Courses

Course			Pre/Co-requisite	Cr. Hrs.
Elective Courses (06 Credits): Students are required to select two courses from the following courses				**06**
MBN	605	Contemporary Topics in Business Analytics	MBN 601	3
MBN	606	Data Governance and Knowledge Management	MBN 601	3
MIT	623	Business Intelligence	None	3

III. Practical Experience & Projects

Course			Pre/Co-requisite	Cr. Hrs.
Students are required to select one course from the following courses				**06**
MBN	700	Dissertation	Completed 18 Credit Hours	6
MBN	710	Applied Research Project		

List of Remedial Courses

Course			Pre/Co-requisite	Cr. Hrs.
MBA	511	Foundations of Quantitative Analysis	None	3
MIT	514	Fundamentals of Data Analytics Techniques	None	3
MBN	501	Management of Information Systems	None	3

Three Semesters Study Plan

Semester	Course Code		Subject Title	Prerequisite	Cr. Hrs.
1	**Cycle 1**				
	MBN	601	Data Management and Visualization	None	3
	MBN	602	Statistics for Data Analytics	None	3
	Cycle 2				
	MBN	603	Programming for Data Analytics	None	3
	MBN	xxx	Elective 1		3
	Total Semester Credit Hours				**12**
2	**Cycle 1**				
	MIT	621	Data Sciences	None	3
	MBN	604	Information Assurance	MBN 601	3
	Cycle 2				
	MIT	622	Data Analytics for Managers	MIT 621	3
	MBN	xxx	Elective 2		3
	Total Semester Credit Hours				**12**
3	MBN	700*	Dissertation	Completion of 18 Cr. Hrs.	6
	MBN	710*	Applied Research Project	Completion of 18 Cr. Hrs.	6
	Total Semester Credit Hours				**6**
Total Credit Hours					**30**