

BUSINESS ANALYTICS (B.S.)

Business analytics is the set of tools and techniques that makes it possible to translate data into insight and information for efficient decision making. Business analytics majors are in high demand in well-paying jobs.

The **Bachelor of Science in Business Analytics** major focuses on applying machine learning to business problems and opportunities. It provides a hands-on introduction to state-of-the-art technologies and techniques, allowing the analysis of large and complex datasets to obtain business insights.

Admissions requirements: Students transferring into the major from the Business Administration or Accounting majors need a 2.7 GPA. Students transferring into the major from other programs need a 3.0 GPA.

120 semester hours of coursework is required for the baccalaureate degree with a minimum 2.70 overall GPA, and a minimum 2.70 major GPA. Students in the degree must also earn a grade of B- or better in INFO 240 – Statistical Methods in Business (or equivalent course taken at MSU or other institutions).

Program Requirements Overview

Code	Title	Credits
	General Education Requirements	30
	World Languages and Cultures Requirements	3-9
	Major Requirements	66
	Free Electives	21-15
Total Credits		120

Program Requirements

Code	Title	Credits
Required Business Administration Courses		
<i>Business Fundamentals</i>		
BCOM 280	Strategic Business Communications	3
INFO 290	Technology in Business	3
ACCT 204	Fundamentals of Accounting	3
<i>Integrated Core</i>		
FINC 300	Integrated Core: Finance	3
INFO 300	Integrated Core: Operations Management	3
MGMT 300	Integrated Core: Management	3
MKTG 300	Integrated Core: Marketing	3
Collateral Courses		
ECON 101	Applied Macroeconomics	3
ECON 102	Applied Microeconomics	3
INFO 173	Spreadsheet Modeling for Business Decisions	3
INFO 240	Statistical Methods in Business	3
Business Analytics Major Requirements		
<i>Business Analytics Core</i>		
INFO 210	Database Systems	3
INFO 257	Programming for Business	3
INFO 265	Foundations of Business Analytics and Artificial Intelligence	3

INFO 266	Data Analysis and Visualization	3
INFO 302	Business Analytics and Artificial Intelligence: Ethical and Legal Issues	3
INFO 366	Managing Big Data and Cloud Computing	3
INFO 367	Introduction to Data Mining	3
INFO 395	Business Analytics and Artificial Intelligence Strategy	3
INFO 401	Text Mining	3
INFO 495	Business Analytics Capstone Practicum	3
<i>Major Electives</i>		
Complete three credits from the list below.		3
Career Learning		
BUGN 310	Campus to Career Transition I	0
BUGN 320	Campus To Career Transition II	0
Total Credits		66

Electives

Code	Title	Credits
INFO 360	MIS Co-Op	3
INFO 390	Digital Transformation	3
INFO 391	Blockchain Technology	3
INFO 414	Information Security System Management	3
INFO 416	Business Process Analysis and Enterprise Systems	3
INFO 470	Electronic Commerce: Creating Business Value Using Information Technology	3
INFO 491	Independent Study in Information Systems	3
INFO 492	Special Topics in Information Systems	1-3
FINC 361	Financial Technology	3
HSET 354	Analytics for Sports and Entertainment Industries	3
MKTG 322	Customer Relationship Management Practicum	3
MGMT 436	Strategic Project Management	3
ECON 390	Applied Econometrics	3

General Education Requirements

Click here for a list of courses that fulfill General Education categories. (<http://catalog.montclair.edu/programs/general-education-requirements-ba-bs/>)

Code	Title	Credits
A. New Student Seminar		
Complete a 1 credit New Student Seminar course.		1
C. Communication		
1. Writing		3
2. Literature		3
3. Communication		3
D. Fine and Performing Arts		
Complete a 3 credit Fine and Performing Arts course.		3
F. Humanities		
1. Great Works and Their Influences		3
2. Philosophical and Religious Perspectives		3
G. Computer Science		
INFO 173	Spreadsheet Modeling for Business Decisions (Fulfilled in the major.)	

H. Mathematics		
INFO 240	Statistical Methods in Business (Fulfilled in the major.)	
I. Natural Science Laboratory		
Complete a 4 credit Natural Science Laboratory course.		4
J. Physical Education		
Complete a 1 credit Physical Education course.		1
K. Social Science		
1. American and European History		3
2. Global Cultural Perspectives		3
3. Social Science Perspectives		
ECON 101	Applied Macroeconomics (Fulfilled in the major.)	
L. Interdisciplinary Studies		
ECON 102	Applied Microeconomics (Fulfilled in the major.)	
Total Credits		30

World Languages and Cultures Requirements

Click here for a list of courses that fulfill World Languages and Cultures categories. (<http://catalog.montclair.edu/programs/world-languages-and-cultures-requirements/>)

Code	Title	Credits
World Languages		
Based on language placement exam, complete one or two sequential courses in the same language. Requirement is automatically fulfilled by language major courses.		
World Cultures		
Requirement may be fulfilled by course selected in General Education 0-3 - Social Science: Global Cultural Perspectives. Requirement may also be fulfilled by major coursework. See list of courses.		
Total Credits		3-9

Recommended Roadmap to Degree Completion

This four-year plan is provided as an outline for students to follow in order to complete their degree requirements within four years. This plan is a recommendation and students should only use it in consultation with their academic advisor.

First Year			
Fall	Credits	Spring	Credits
GENERAL EDUCATION: (A) New Student Seminar	1	GENERAL EDUCATION: (C2) Literature	3
GENERAL EDUCATION: (C1) Writing	3	GENERAL EDUCATION (I) Natural Science Laboratory	4
CMST 101	3	GENERAL EDUCATION (K1) Social Science – American and European History	3
ECON 102	3	INFO 240	3
INFO 173	3	ECON 101	3

MATH 100 (if needed, or Free Elective)	3
16	16

Second Year			
Fall	Credits	Spring	Credits
ACCT 204	3	GENERAL EDUCATION (F1) Humanities – Great Works and Their Influences	3
GENERAL EDUCATION: (K2) Social Science – Global Cultural Perspectives	3	World Language I	3
BCOM 280	3	INFO 210	3
INFO 265	3	INFO 302	3
INFO 290	3	INFO 257	3
		BUGN 310	0
15			15

Third Year			
Fall	Credits	Spring	Credits
FINC 300	3	GENERAL EDUCATION: (D) Fine and Performing Arts	3
MGMT 300	3	GENERAL EDUCATION: (F2) Humanities – Philosophical and Religious Perspectives	3
MKTG 300	3	World Language II	3
INFO 300	3	INFO 366	3
INFO 266	3	INFO 367	3
15			15

Fourth Year			
Fall	Credits	Spring	Credits
World Cultures	3	GENERAL EDUCATION: (J) Physical Education	1
INFO 395	3	INFO 495	3
INFO 401	3	Major Elective	3
Free Elective	3	Free Elective	3
Free Elective	3	Free Elective	3
BUGN 320	0		
15			13

Total Credits 120