

Bachelor of Science in Business Analytics

The Bachelor of Science in Business Analytics teaches you how to apply data analytics and mining techniques to help you meet your organization's business objectives. You'll be given problem-solving exercises working with fictional data sets and analysis for hands-on learning. The curriculum will prepare you to collect and analyze data in order to help you to tackle difficulties in business processes and create better tools for decision-making. Regardless of your industry, acquiring training in business intelligence is good preparation for those interested in fields such as business analyst, analytic system designer, or data scientist.

This program has been designed in consultation with industry business leaders and is accredited by the Accreditation Council for Business Schools and Programs (ACBSP®) (<http://www.acbsp.org>).

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Degree Program Objectives

In addition to the institutional and degree level learning objectives, graduates of this program are expected to achieve these learning outcomes:

- Integrate the various statistical analytics outputs and applications.
- Implement the models and add-ins used by Excel to process statistical data.
- Deconstruct student experiences with real time analytics applications and work problems.
- Produce a functional or chronological analytic project, along with an appropriate display and interpretation of results, findings, and recommendations for decision makers.
- Integrate key issues and topics in a reflective essay from the overall program experience.

Degree at a Glance

Code	Title	Semester Hours
	General Education Requirements	30
	Major Required	39
	Select one concentration from the following:	9
	General (p. 3)	
	Accounting (p. 3)	
	Entrepreneurship (p. 3)	

	Human Resources (p. 4)	
	Marketing (p. 4)	
	Retail Management (p. 4)	
	Security and Intelligence (p. 5)	
	Final Program Requirements	6
	Elective Requirements	36
	Total Semester Hours	120

Degree Program Requirements

General Education Requirements (30 semester hours)

Code	Title	Semester Hours
Arts and Humanities (6 semester hours)¹		
Select 2 courses from the following:		6
ARAB100	Arabic I	
ARAB101	Arabic II	
ARTH200	Art Appreciation	
ARTH241	Film and Literature	
DSIN141	Image Enhancement using Adobe Photoshop	
FREN100	French I	
FREN101	French II	
GERM100	German I	
GERM101	German II	
JAPN100	Introduction to Japanese	
LITR215	Literature of American Encounters, Revolution, and Rebellion	
LITR218	From Abolition to #MeToo: Literature of the American Civil Rights Movement	
LITR222	Pivotal Figures in Early British Literature	
LITR225	British Literature from Wordsworth through the Wasteland	
LITR231	Leadership in World Literature: Antiquity to the Early Modern Period	
LITR233	Literature of the Newly Globalized World: The Individual's Struggle to Adapt	
MUSI200	Music Appreciation	
MUSI250	World Music and Cultures	
PHIL101	Introduction to Philosophy	
PHIL110	Critical Thinking	
PHIL200	Introduction to Ethics	
PHIL202	Philosophy of Science	
PORT100	Introduction to Brazilian Portuguese	
RELS201	Introduction to World Religions	

RUSS100	Russian I	
SPAN100	Spanish I	
SPAN101	Spanish II	
STEM270	Thinking and Acting Ethically	
Civics, Political and Social Sciences (6 semester hours) ¹		
Select 1 course from the following:		3
ECON201	Microeconomics for Business	
ECON202	Macroeconomics for Business	
Select 1 course from the following:		3
ANTH100	Introduction to Anthropology	
ANTH202	Introduction to Cultural Anthropology	
CHFD220	Human Sexuality	
COMM211	Social Media and Society	
COMM240	Intercultural Communication	
EDUC200	Humane Education: A Global Interdisciplinary Perspective	
GEOG101	Introduction to Geography	
HOSP110	Practical Food Safety and Awareness	
IRLS210	International Relations I	
LITR212	Forgotten America--Under Represented Cultures in American Literature	
LITR235	Four Points of the Compass: Culture and Society Around the World	
POLS101	Introduction to Political Science	
POLS210	American Government I	
PSYC101	Introduction to Psychology	
SOCI111	Introduction to Sociology	
SOCI212	Social Problems	
SOCI220	American Popular Culture	
STEM280	Exploring Society and Cultures via Science Fiction	

Communication: Writing, Oral, and Multimedia (9 semester hours)

COMM120	Information and Digital Literacy	3
ENGL110	Making Writing Relevant	3
Select 1 course from the following:		3
COMM200	Public Speaking	
ENGL101	Proficiency in Writing	
ENGL115	Argumentation and Rhetoric	
ENGL210	Introduction to Literature	
ENGL221	Scientific Writing	
ENGL220	Technical Writing	
ENGL226	Effective Business Communication	
HRMT101	Human Relations Communication	
IRLS200	Information Literacy and Global Citizenship	
ITCC231	Introduction to Information Technology Writing	

MGMT100	Human Relations	
History (3 semester hours)		
Select 1 course from the following:		3
HIST101	American History to 1877	
HIST102	American History since 1877	
HIST111	World Civilization before 1650	
HIST112	World Civilization since 1650	
HIST121	Western Civilization before The Thirty Years War	
HIST122	Western Civilization since The Thirty Years War	
HIST221	African-American History before 1877	
HIST222	African-American History since 1877	
HIST223	History of the American Indian	
HIST270	History of Science	
STEM185	The History and Context of STEM	
Mathematics and Applied Reasoning (3 semester hours)		
MATH110	College Algebra	3
Natural Sciences (3 semester hours)		
Select 1 course from the following:		3
BIOL180	Introduction to Biology	
BIOL181	Introduction to Human Anatomy and Physiology	
CHEM180	Introduction to Chemistry	
ERSC180	Introduction to Meteorology	
ERSC181	Introduction to Geology	
EVSP180	Introduction to Environmental Science	
PHYS180	Introduction to Physics	
SPST180	Introduction to Astronomy	
STEM100	Introduction to STEM Disciplines	
Total Semester Hours		30

¹ All literature courses require successful completion of ENGL101 - Proficiency in Writing or ENGL110 - Making Writing Relevant.

Major Required (39 semester hours)

Code	Title	Semester Hours
ACCT105	Accounting for Non Accounting Majors	3
BUSN100	Basics of Business	3
MGMT101	Principles of Supervision	3
MKTG201	Fundamentals of Marketing	3
ITCC200	Application Software Integration	3
BUSN311	Law and Ethics in the Business Environment	3
BUSN312	Operations Research	3
BUSN410	Critical Thinking Strategies for Business Decisions	3
FINC300	Foundations of Financial Management	3
MATH302	Statistics	3

BUSN250	Analytics I	3
BUSN350	Analytics II	3
BUSN450	Advanced Analytics	3
Total Semester Hours		39

Students must choose a concentration for this degree program and may select from a General Concentration, Concentration in Accounting, Concentration in Entrepreneurship, Concentration in Human Resources, Concentration in Marketing, Concentration in Retail Management, or a Concentration in Security and Intelligence.

General Concentration (9 semester hours)

A general concentration allows you to take courses across a number of areas of study within your program based on your own interests.

Concentration Requirements (9 semester hours)

Code	Title	Semester Hours
ANLY460	Applied Analytics I	3
ANLY461	Applied Analytics II	3
ANLY462	Applied Analytics III	3
Total Semester Hours		9

Concentration in Accounting (9 semester hours)

This concentration offers the opportunity to Business Analytics students to get exposure and a bit of knowledge about Accounting processes and management and how students can leverage data and analytics tools to Accounting areas. This concentration satisfies the growing trend of Accounting Analytics. Students who successfully complete this concentration will be able to apply analytics tools to solve accounting problems and support decision making in accounting.

Objectives

Upon successful completion of this concentration, the student will be able to:

- Research and appraise historic, current, and developing methodologies in business and big data analytics and apply them appropriately to accounting & financial transactions.
- Demonstrate knowledge of the ethical framework for accountants adopted by professional accounting organizations, and accounting principles.
- Analyze, evaluate, and organize financial data to facilitate managerial decision making in accounting.

- Conduct an in-depth analysis of an organization's financial information and provide a written assessment of the results.

Concentration Requirements (9 semester hours)

Code	Title	Semester Hours
Select 3 courses from the following:		9
ACCT202	Introduction to Payroll	
ACCT300	Financial Accounting	
ACCT301	Intermediate Accounting I	
ACCT302	Intermediate Accounting II	
ACCT303	Intermediate Accounting III	
ACCT305	Accounting Information Systems	
ACCT400	Auditing	
ACCT406	Managerial/Cost Accounting	
ACCT410	Governmental and Not-for-Profit Accounting	
ACCT415	Law for Accountants	
ACCT420	Individual Federal Taxes	
Total Semester Hours		9

Concentration in Entrepreneurship (9 semester hours)

This concentration offers a unique skill for entrepreneurs who are looking to make informed decision and to solve business problems.

Objectives

Upon successful completion of this concentration, the student will be able to:

- Research and appraise historic, current, and developing methodologies in business and big data analytics and apply them appropriately to manage the operations of a wide variety of Entrepreneurship aspects
- Demonstrate knowledge of the data analytics framework adopted by and for Entrepreneurship functions associated with owning and operating a business.
- Analyze, evaluate, and organize Entrepreneurship data, to facilitate problem solving, and decision making in all functions associated with owning and operating a business, where data is collected and utilized.

Concentration Requirements (9 semester hours)

Code	Title	Semester Hours
Select 3 courses from the following:		9
ENTR150	Idea Generation	
ENTR311	Business Plan Foundations	
ENTR320	Practical Law for the Entrepreneur	
ENTR315	Financing a New Venture	
Total Semester Hours		9

Concentration in Human Resources (9 semester hours)

This concentration offers the opportunity to Business Analytics students to get exposure and a bit of knowledge about Human Resource processes & management, and how students can leverage data and analytics tools to HR areas like Compensation and Benefits, Information Systems, or Recruitment and Staffing. This concentration satisfies the growing trend of HR Analytics. Students who successfully complete this concentration will be able to apply analytics tools to solve HR problems and support decision making in HR.

Objectives

Upon successful completion of this concentration, the student will be able to:

- Research and appraise historic, current, and developing methodologies in business and big data analytics and apply them appropriately to Human Resource Management and operations.
- Demonstrate knowledge of the ethical framework for accountants adopted by businesses professional organizations, and Human Resource Management principals.
- Analyze, evaluate, and organize employee’s financial data, administrative data, information data, and Human Resource Management data, to facilitate managerial decision making.
- Conduct an in-depth analysis of an organization's personnel and Human Resource Management information, and provide a written assessment of the results.

Concentration Requirements (9 semester hours)

Code	Title	Semester Hours
Select 3 courses from the following:		9
HRMT407	Human Resource Management	
HRMT412	Compensation and Benefits	
HRMT415	Human Resource Management Information Systems	

HRMT419	Recruitment and Staffing	
Total Semester Hours		9

Concentration in Marketing (9 semester hours)

This concentration offers the opportunity to Business Analytics students to get exposure to marketing and the means of reaching existing and potential customers in the modern world of business. Knowledge of the tools utilized in the marketing space are becoming essential for business professionals. The marketing concentration is designed to build on the knowledge gained in the Bachelor’s of Science in Business Analytics program and to provide focus on marketing from a data analysis perspective and developing an integrated marketing strategy.

Objectives

Upon successful completion of this concentration, the student will be able to:

- Research and appraise historic, current, and developing methodologies in business and big data analytics and apply them appropriately to Marketing.
- Demonstrate knowledge of the ethical framework for marketers and marketing professionals adopted by businesses professional organizations, and marketing principals.
- Analyze, evaluate, and understand market dynamics & trends, sales and marketing data, to facilitate managerial decision making.
- Conduct an in-depth analysis of an organization's sales and marketing information, and provide a written assessment of the results.

Concentration Requirements (9 semester hours)

Code	Title	Semester Hours
Select 3 courses from the following:		9
MKTG305	Advertising	
MKTG400	Marketing Research	
MKTG401	Marketing Strategy	
MKTG403	Marketing Management	
Total Semester Hours		9

Concentration in Retail Management (9 semester hours)

This concentration offers a unique qualification and skill for problem solving for students interested in joining the retail industry as it grows to amass trillions of dollars in revenues worldwide, especially online retail data and transactions.

Objectives

Upon successful completion of this concentration, the student will be able to:

- Research and appraise historic, current, and developing methodologies in business and big data analytics and apply them appropriately to manage the operations of a wide variety of retail businesses fields.
- Demonstrate knowledge of the data analytics framework adopted by and for retail management (including merchandizing, customer service, etc.) professionals and/or organizations, and analysis principals.
- Analyze, evaluate, and organize retail management data, to facilitate problem solving, and decision making in all areas of retail management where data is collected and utilized.

Concentration Requirements (9 semester hours)

Code	Title	Semester Hours
Select 3 courses from the following:		9
RTMG201	Retail Inventory Management	
RTMG300	Retail Strategy	
RTMG302	Retail Operations	
RTMG303	Retail Merchandising Operations	
Total Semester Hours		9

Concentration in Security and Intelligence (9 semester hours)

This concentration offers the opportunity to Business Analytics students to get exposure and a bit of knowledge about Security and Intelligence processes related to national and international security elements, and how students can leverage data and analytics tools to Security and Intelligence areas like Threat Analysis, Intel and Homeland Security, Intelligence Analysis, Cyber Warfare, Narcotics, Terrorism and US National Security. This concentration satisfies the growing trend of Intelligence Analytics. Students who successfully complete this concentration will be able to apply analytics tools to solve Security and Intelligence problems and support decision making.

Objectives

Upon successful completion of this concentration, the student will be able to:

- Research and appraise historic, current, and developing methodologies in business and big data analytics and apply them appropriately to Terrorism, Security & Intelligence fields.

- Demonstrate knowledge of the data analytics framework adopted by security & intelligence professionals and/or organizations, and analysis principals.
- Analyze, evaluate, and organize Terrorism, Security, War & Intelligence data, to facilitate tactical & strategic problem solving, and decision making.
- Conduct an in-depth analysis of an organization's Security & Intelligence information, and provide a written assessment of the data analytics results & interpretations.

Concentration Requirements (9 semester hours)

Code	Title	Semester Hours
Select 3 courses from the following:		9
INTL401	Critical Analysis	
INTL434	Threat Analysis	
HLSS320	Intelligence and Homeland Security	
INTL402	Intelligence Analysis	
INTL440	Cyber Warfare	
INTL446	Intelligence and Narcotics	
INTL451	Terrorism and U.S. National Security	
INTL453	Illicit Finance	
CMRJ320	Law Enforcement Intelligence Applications	
Total Semester Hours		9

Final Program Requirements (6 semester hours)

Code	Title	Semester Hours
ANLY499	Analytics Senior Seminar (to be taken as the last course before graduation) ¹	6
Total Semester Hours		6

¹ Prerequisite: Senior Standing and completion of all major courses prior to enrollment.

Elective Requirements (36 semester hours)

Code	Title	Semester Hours
Select any courses not already taken to fulfill the requirements listed above. Credits applied toward a minor or certificate in an unrelated field may be used to fulfill elective credit for the major.		36
Total Semester Hours		36