GRAND VIEW UNIVERSITY

Business Analytics

Degree Awarded: Bachelor of Arts
Requirements for the Major: 48 credits and 11-12 prerequisite credits

The major in Business Analytics is designed for students interested in learning about the scientific process of using data to make better decisions in various areas of organization, non-for-profit and government entities.

By using data analysis, optimization techniques, and modeling tools, students have the opportunity to make sense of big data across multiple functions of the business. The major in Business Analytics will prepare students in the business, mathematics, and computer science disciplines of data analysis and optimization to think critically about data and use data in meaningful ways. Business Analytics focuses on using mathematical approaches to help improve decision making and performance in business. To better understand business situations, students focus on collecting and analyzing data, drawing on probability and statistics. In order to improve organization's performance, students work with the vast amount of Big Data to help discover trends and make predictions, and then make strategic, data-driven decisions.

The undergraduate business analytics major prepares students to succeed in a data-driven world, providing exposure to software platforms and techniques used to store, transform, manipulate, analyze and interpret small and large sets of data.

Prerequisites for courses for the major:
- BSAD/CPSC 241- MATH 095, 096, 116, or satisfactory score on Math Placement.
- CPSC 260- MATH 095 or 096 with a grade of C minus or above, or satisfactory score on Math Placement.
- CPSC 310- includes MATH 331.
- STAT 239- Math ACT of 22 or above, Math Placement, or completion of either an introductory or intermediate algebra course with a C minus (C-) or above or a course meeting the quantitative reasoning requirement with a C minus (C-) or above.
- STAT 241- MATH ACT of 22 or above, Math Placement, Math 095 or 096 or 105 with a grade of C minus (C-) or above.
- STAT 261- MATH 121.
- STAT 341- MATH 095, 096, or 105, and STAT 239, 241, or 261.
- DATA 437- includes BSAD 217.

Prerequisite courses for the major: These prerequisites will not be included in the major GPA but must be taken for the major.

			Essential Competencies-Outcome Iterations **Transfer courses do not receive outcome iterations**						
			CI	IL	W	O	Q	GA	V
ACCT 211	Financial Accounting	3							
BSAD 295	Careers in Business (will be excused for students earning their degree fully in the online and/or evening formats)	2							
DATA 101	Introduction to Data Analytics	3	x	x					x
BSAD/STAT 239 or STAT 241 or STAT 261* †	Statistics for the Social Sciences or Principles of Statistics or Applied Statistics	3 or 4 or 3	x x x				x x x	x	

Requirements for the Major:
48 semester credits including a 15 credit business core, a 24 credit analytics core, and 9 credits of electives.

Business Core Courses			Essential Competencies-Outcome Iterations **Transfer courses do not receive outcome iterations**						
			CI	IL	W	O	Q	GA	V
BSAD 310	Principles of Management	3							
BSAD 315	Marketing	3							
BSAD 352	Corporate Finance	3					x		
BSAD 365	Project Management	3							
BSAD 399	Internship	3							x

Analytics Core Courses

Essential Competencies-Outcome Iterations
Transfer courses do not receive outcome iterations

				CI	IL	W	O	Q	GA	V
	BSAD/CPSC 241	Computer Science I	3							
	CPSC 242	Computer Science II	3		x					
	CPSC 260	Fundamental Programming for Data Mining and Analysis	3							
	DATA 321	Data Visualization	3			x				
	BSAD/CPSC 421	Databases	3							
	STAT 341	Applied Regression Analysis and Modeling	3				x			
	DATA 445	Applied Statistical/Machine Learning	3							
	DATA 454	Business Analytics Capstone	3			x	x			x

Electives- take 9 credits from the following

				CI	IL	W	O	Q	GA	V
	DATA 433	Finance Analytics	3							
	DATA 435	Marketing Analytics	3							
	DATA 437	Sport Analytics	3							
	DATA 448	Predictive Analytics	3							
	CPSC 310 †	High Performance Computing for Big Data and AI	3							

These courses will be counted in computing the 2.20 GPA for the major.

* A student double majoring in Applied Mathematics is required to take STAT 261

† A student double majoring in Computer Science is strongly advised to take STAT 261, MATH 331 (prerequisite for CPSC 310), and CPSC 310.