

# Applied Business Analytics Concentration

An Applied Business Analytics concentration in the Bachelor of Science degree will provide students with the opportunity to specialize in an area of applied business analytics that is extremely relevant in public, for-profit, or non-profit organizations that require the skills of business analytics. The concentration will build upon the strengths of the UIS undergraduate general education requirements, existing CBM foundation and existing CBM college core course work to develop competencies that will prepare students for success in diverse areas of business such as business analysts.

## Objectives

1. Acquire knowledge of the history, evolution, current development, and the basic concepts central to business analytics.
2. Apply data visualization, machine learning, artificial intelligence for effective business problem solving.
3. Conduct business analytics using data mining techniques and know and where to find qualified data/resources to interpret the impact on business and institutions.
4. Obtain hands-on experience in business analytics processes from problem identification, data collection, data exploration, descriptive, predictive and prescriptive analysis, and result interpretation.

## Grading Policy

Student must earn a minimum grade of C- in all foundation courses and a cumulative GPA of at least 2.0 across all foundation courses. Students must earn a minimum of C- in all college core courses (EXCEPT MGT 488) and a cumulative GPA of at least 2.0 across all college core courses. A minimum grade of C (2.0) is required in MGT 488 (a grade of C- or lower will not be accepted).

## Internship

The Applied Business Analytics concentration requires a minimum of three hours of internship course work consisting of an individualized field experience (ILP 300) or an individual project (IPL 301) in the area of Applied Business Analytics. Students are encouraged to complete six hours of internship. Internship hours will be used to fulfill the Engagement Experience ECCE category. Students must complete course work in at least one of the other ECCE categories including U.S. Communities and Global Awareness. The one hour UNI 301 speaker Series course fulfills the last hour of the ECCE requirement (10 total ECCE hours required)

- Only in exceptional cases, using a Student Petition, with appropriate College of Business and Management approvals, students may request to waive the three-hour internship requirement and substitute an alternative ECCE course.
- Credit for Prior Learning (IPL 305) may not be used by College of Business and Management students to fulfill degree requirements.

## Requirements

### Required Courses

Junior or senior standing required to enroll in ACC 311 and ECO 315		
ACC 211 & ACC 212 or ACC 311	Introduction to Financial Accounting and Introduction to Managerial Accounting Administrative Uses of Accounting	4-6
ECO 201 & ECO 202 or ECO 315	Introduction to Microeconomics and Introduction to Macroeconomics Economics for Administration	4-6
ECO 213 or MAT 121	Statistics for Business and Economics Applied Statistics	3
Course work equivalent to the above may be accepted upon approval by the student's advisor and the College of Business and Management by a Student Petition.		

**Total Hours** 11-15

### College Core Requirements:

BUS 312	Principles of Marketing	3
BUS 322	Principles of Operations Management	3
BUS 331	ECCE: Business, Ethics, and Society	3
FIN 302	Principles of Financial Management	3
MGT 310	Managing Organizational Behavior	3
MGT 330	Business and Managerial Communication	3
MGT 488	Strategic Management: The Capstone <sup>1</sup>	3
MIS 352	Principles of Management Information Systems	3
MIS 376	Business Analytics	3

**Total Hours** 27

<sup>1</sup> Prerequisite: All college core courses, and within 12 hours of graduation or during the student's last semester. A minimum grade of C (2.0) is required in MGT 488 (a grade of C- or lower will not be accepted).

All MIS undergraduate majors must complete 18 core credit hours to fulfill the degree requirements as follows:

### Applied Business Analytics Concentration Requirements

MIS 377	Visual Analytics for Business	3
MIS 385	Data and Information Management	3
MIS 471	Artificial Intelligence and Machine Learning	3
MIS 473	Data Mining and Predictive Analytics	3
MIS 476	Business Analytics Practicum	3

**Elective Courses (Select one from the following)** 3

MGT 475	People Analytics	
MKT 432	Research Methods and Analytics in Marketing	
Other subject-oriented analytics courses approved by MIS Department (e.g., Python, Marketing Analytics; Financial Analytics; Accounting Analytics)		

**Total Hours** 18

Engaged Citizenship Common Experience (ECCE) 10