CATALOG YEAR _15-16_

COLLEGE/SCHOOL/SECTION: ARSSB/DIBTS _____

Course: Add: ___   Delete:___Delivery: ___
(check all that apply) Change: Number___Title___SCH___Description___Prerequisite ____
Response Required: **New** course will be part of major___minor____as a required ___
                        or elective___course
Response Required: **New** course will introduce____, reinforce____, or apply___concepts

Response Required: Grade Type_____Normal (A-F)_____CR/NC_____P/F

Shortened Course Format: Equivalent Student Learning Outcomes verified: _____

If new, provide Course Prefix, Number, Title, **Measurable** Student Learning Outcomes, SCH
Value, Description, prerequisite, and lecture/lab hours if applicable. If in current online catalog,
provide change and attach text with changes in red and provide a brief justification.

Program: Delete:___Add:____Change: _X_   Attach new/changed Program of Study
description and 4-year plan. If in current online catalog, provide change and attach text with
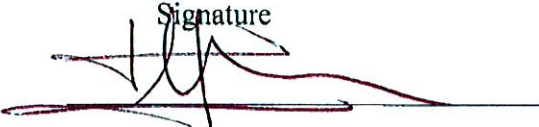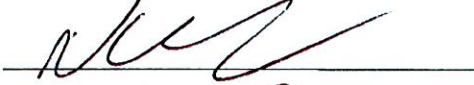changes in red.

Program Learning Outcomes: Add:___Change: ____   Attach listing of program learning
outcomes.

Minor: Add:___Delete:____Change: ____   Attach new/changed minor. If in current
online catalog, provide change and attach text with changes in red.

College Introductory Pages: Add information:___Change information: ____
Attach new/changed information. If in current online catalog, provide change and attach text
with changes in red.

Other: Add information:___Change information:____Attach new/changed information. If in
current online catalog, provide change and attach text with changes in red.

Approvals:	Signature	Date
Chair Department Curriculum Committee		2/11/2015
Chair Department		2/12/15
Chair College Curriculum Committee		2/11/2015
Dean	R. Stephen Bean	2/23/2015
Provost		3/20/15

2014

BACHELOR OF BUSINESS ADMINISTRATION
MAJOR IN MANAGEMENT INFORMATION SYSTEMS & DATA ANALYTICS

Following is a suggested four-year degree plan. Students are encouraged to see their advisor each semester for help with program decisions and enrollment; responsible for reviewing the **Program of Study Requirements;** and must meet **foreign language** and **writing intensive course** requirements for graduation. See Academic Regulations-Undergraduate online.

See the University Core Curriculum Requirements in Appendix A for approved list of course options.

FALL			HOURS	SPRING			HOURS
FRESHMAN YEAR				**FRESHMAN YEAR**			
ENGL	1301	English Composition I	3	COMM	1315	Public Speaking	3
HIST	1301	The U.S. to 1877	3	ENGL	1302	English Composition II	3
MATH	1324	Business Math I	3	HIST	1302	The U.S. Since 1877	3
UNIV	1101	Learning in a Global Context I	1	MATH	1325	Business Math II	3
		Creative Arts*	3	UNIV	1101	Learning in a Global Context I	1
		Life & Physical Science*	3			Life & Physical Science*	3
		Life & Physical Science Lab	1			Life & Physical Science Lab	1
Total			17				17
SOPHOMORE YEAR				**SOPHOMORE YEAR**			
ECO	2301	Prins of Macroeconomics	3	ACC	2302	Intro Managerial Acc	3
ACC	2301	Intro to Financial Acc	3	ECO	2302	Prins of Microeconomics	3
DS	2310	Business Statistics I	3	PSCI	2306	American State Govt	3
MIS	2350	Intro to Programming	3			General Elective[1]	2
PSCI	2305	American National Govt	3			General Elective[1]	3
		Language, Philosophy&Culture	3				
Total			18				14
JUNIOR YEAR				**JUNIOR YEAR**			
BA	3301	Prof Written Comm	3	BA	3310	Legal Environ of Business	3
BA	3320	International Business	3	ECO	3320	Managerial Economics	3
MIS	3310	Management Info Syst	3	MIS	3330	Database Des&Impl	3
MIS	3320	Analysis & Design	3	~~MIS~~	~~3350~~	~~Adv Programng Concepts~~	
MIS	3340	Data Comm&Networking	3	MIS	3360	Business Data Visualization & Analysis	3
Total			15				12
SENIOR YEAR				**SENIOR YEAR**			
FIN	3310	Introduction to Finance	3	BA	4390	Business Strategy	3
MGT	3310	Prins of Mgt&Org Behavior	3	~~MIS~~	~~4385~~	~~Info Resource Mgmt~~	~~3~~
~~MIS~~	~~4310~~	~~Info System Des&Impl~~	~~3~~	MIS	4380	Business Decision Modeling	3
MIS	4320	Data Mining and Business Intelligence	3	MKT	3310	Principles of Marketing	3
MIS		Advanced MIS Elective	3	POM	3310	Prod Operations Mgmt	3
		~~Adv Business Elective~~	~~3~~				
MIS	4360	Social Business Analytics	3				
Total			15				12

TOTAL SEMESTER CREDIT HOURS: 120

[1]Select from ANTH/COMM/GEOG/HIST/KINE/PHIL/PSYC/SOCI/MATH/SCIENCE.

Actual degree plans may vary depending on availability of courses in a given semester. Some courses may require prerequisites not listed.

Degree Requirements for the BBA with a major in Management Information Systems

1. Hours Required: 120 semester credit hours (SCH): 45 hours must be advanced, with fulfillment of degree requirements as specified in the "Requirements for Graduation" section of this catalog and the General Requirements for undergraduate degrees at the beginning of this section.

2. University Core Curriculum: 42 SCH as outlined in the suggested plans and as specified in the "Requirements for Graduation".

3. MATH: 3 SCH designated as Math 1325.

4. Life & Physical Science Lab: 1 SCH compatible with a Life & Physical Science course.

5. Microeconomics Elective: 3 SCH designated as ECO 2302.

6. General Electives: 5 SCH selected from ANTH/COMM/GEOG/HIST/KINE/MATH/PHIL/PSYC/SOCI/SCIENCE.

7. Communication: 3 SCH designated as BA 3301.

8. Business Foundation: 9 SCH including ACC 2301, 2302 and DS 2310.

9. Common Body of Knowledge: 24 SCH including BA 3310, 3320, MIS 3310, ECO 3320, FIN 3310, MGT 3310, MKT 3310, and POM 3310.

30 **10. Major: 27 SCH** including: MIS 2350, 3320, 3330, 3340, ~~3350, 3360, 4310,~~ 4320, 4360, 4380, ~~4385~~, BA 4390, which must be taken during the final semester prior to graduation, and any advanced MIS elective.

~~**11. Business Elective: 3 SCH of any 3000-4000 level course offered by the A. R. Sanchez, Jr. School of Business not used above.**~~

BBA WITH A MAJOR IN MANAGEMENT INFORMATION SYSTEMS & DATA ANALYTICS:

1. Develop knowledge of technological developments in the global business realm;
2. Provide skills to operate and manage computer-based information systems;
3. Impart technological skills of this evolving field for responding to social and economic developments in order to become creative and responsible leaders in business and society.

Delete Courses from Course Descriptions Section:

1. MIS 3350 *Advanced Programming Concepts*. Three semester hours.

2. MIS 4310 *Information System Design and Implementation*.

3. MIS 4385 *Information Resource Management*. Three semester hours.

Add to Course Descriptions Section:

1. MIS 3360 – Business Data Visualization and Analysis

   This course provides an overview of data visualization and analysis methods relevant to current business decision making. The class will help students to develop skills through all phases of the analysis and visualization process: determining analysis purpose; retrieving relevant data; analyzing the data; presenting the data in a method that enhances understanding. Use of modern visualization and analysis programs will be emphasized throughout the course. Prerequisite: DS 2310 or permission of the instructor.

2. MIS 4320 - Data Mining and Business Intelligence

   This course will introduce students to various statistical techniques frequently used in analyzing data to generate information useful in business decision-making. Advanced data-analytic techniques such as mathematical optimization, data mining, and artificial intelligence models will also be introduced using software-based data analytic tools. Prerequisite: DS 2310 or permission of the instructor.

3. MIS 4360 - Social Business Analytics

    This course is designed to enhance students' understanding of social information technologies (social IT), to prepare them to analyze massive data generated from social IT, and to help them understand how to leverage the capacities of social IT and the data to create firms' competitive advantages. Prerequisite: DS 2310 or permission of the instructor.

4. MIS 4380 - Business Decision Modeling

    This course includes fundamental concepts of both statistics and decision theory. This course provides an introduction to generic modeling techniques that can be employed to address the complexity of business decision making. Prerequisite: DS 2310 or permission of the instructor.

JUSTIFICATION: Modernization of the existing BBA in MIS Program to include a Data Analytics component, whereby students will learn various state-of-the-art techniques to compile and analyze data from various organizations and from the cloud. The goal of these analyses will be a better understanding of issues that can be used to improve the quality of goods and services in organizations, and the productivity with which those goods and services are generated and delivered to customers.

Administrative Change Request
Change to An Existing Degree Program

Instructions. Institutions requesting a change to an existing degree program should address the factors below in determining if the request is a degree modification or would necessitate a request for a new degree program. No one factor necessarily determines the decision but in general the more extensive the change(s) the more likely the need for a new program request.

I. Current Degree Information:

Current degree program: "BBA Major in Management Information Systems,
CIP code: 52.1202.00, and
administrative structure: administrative structure remains the same.

II. Proposed Change:

A. **Program Identification:** Describe changes to the program identification.
   1. Change name.
      Name change from "BBA Major in Management Information Systems" to "BBA Major in Management Information Systems & Data Analytics".
   2. Change in degree designation (e.g., EdD to PhD, MS to MBA, BA to BS, etc.).: No change
   3. CIP Code change. No change
   4. Change in administrative unit. No change

B. **Justification for Change:** Describe the content of the existing degree program authorized by the Coordinating Board and evidence of the need for the change.

The objectives of the existing degree program are the following:

1. Develop knowledge of technological developments in the global business realm;
2. Provide skills to operate and manage computer-based information systems;
3. Impart technological skills in this evolving field for responding to social and economic developments in order to become creative and responsible leaders in business and society.

While the degree program objectives remain the same, the current degree program does not have a focus on data analytics. Data analytics is a well-established trend in the MIS field. In the future, it is likely that it will continue to be a capital component in information systems. Evidence of such trend is abundant in the academic literature and in the popular press. We need to adapt our degree to respond to such an important environmental change. In other words, adding the data analytics component is a necessary step to be able to achieve the above stated objectives.

C. Other Changes Associated With Request.
1. Focus/purpose or objectives/mission of degree.

   The overall objectives/mission of the degree remains the same (see objectives above). Our focus on producing high quality graduates in the field continues to be paramount. Adding data analytics is a necessary condition to remain competitive and to continue to be able to produce high caliber graduates.

2. Additional areas of employment available to graduates.

   Students will become more competitive in the labor market because data analytics is a well-established trend. In the future, a certain degree of data analytics expertise may be necessary to get a job in this field. Certainly, once our new course set generates its expected outcomes, our graduates will be more competitive in the labor market *vis a vis* graduates from programs with no data analytics focus.

D. Describe changes in the curriculum:
Include information on:
1. Degree completion requirements.

   No changes other than the courses added and the ones phased out.

2. Additional new courses to be added.

   The following courses will be added:
   MIS 3360 Business Data Visualization, MIS 4320 Data Mining and Business Intelligence, MIS 4360 Social Business Analytics, and MIS 4380 Business Decision Making.

3. Changes to existing courses.

   The following courses will be eliminated:

   MIS 4310 Info System Des& Impl, MIS Advanced Business Elective, MIS 3350 Adv Programng Concepts, and MIS 4385 Infor Resource Mgmt.

4. Courses common to all students in the degree plan
   No change.

5. How will the set of courses required of all students in the degree program change?
   As indicated earlier in 2) and 3) (see above).

6. New specializations (tracks, concentrations, focus areas, emphases, etc.)
   No change.

E. Describe new accreditation, licensure & certification
1. What new program accreditation would become available?
   None.

2. What new professional licensure or certification would become available?
   None.

F. Describe changes needed in core faculty
1. New faculty needed to implement proposed change
   None. We already have faculty members with expertise in the new courses to be offered.

2. New areas of expertise sought in additional faculty during past three years that have contributed to degree program change.

   The scanning of environmental changes influenced the focus of some of the faculty members that were hired in the last few years. Thus, we have recently hired faculty with expertise on data analytics. In addition, some of the already existing faculty in our division has such type of expertise.

3. New areas of expertise in additional faculty that will be hired during the upcoming three year.

   Considering the expected evolution of the course changes over time, we already have the required faculty for the next three years. Nonetheless, in our strategic planning we will take into account expected faculty needs in the medium and long terms.

4. Existing faculty that will be reassigned to a different program or terminated. Other faculty that would become responsible for program delivery.
   No change.

G. Cost:
1. Please indicate **new** costs that will be incurred with the modification to the degree program during the first five years after the changes.

   No new costs will be necessary. We have needed computing equipment. New software is by and large open access.

2. How will these costs be met?