UNIT REPORT

**Management Information Systems BBA**
**Assessment Plan Summary**

# Management Information Systems BBA

## Management Information Systems- A Broad Base Of Knowledge

**Goal Description:**

The goal of the BBA program in Management Information Systems is to provide students with a broad base of knowledge in the Management Information System discipline.

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

**Database**

**Learning Objective Description:**

Students who complete the BBA in Management Information Systems will demonstrate an understanding of the design and implementation of database applications and how database software works and its inclusion in design solutions. (MGIS3330)

RELATED ITEM LEVEL 2

**Database Indicators**

**Indicator Description:**

Assessment of Database Management Systems (DBMS) skills will be conducted in MGIS 3330 and MGIS 4330. Student performance in the areas of **design** and **implementation** of database applications will be measured with the use of homework assignments and exams.

**Criterion Description:**

Students are assumed to have no previous knowledge of database design and implementation skills and are not given a pretest. The class average on both, **design** and **implementation** of databases will be 70% correct. Skills in these two areas will be included on each unit examination. M/C questions and hands-on exercises may be utilized dependent on the instructor and course, MGIS 3330 and MGIS 4330.

**Findings Description:**

**For MGIS 3330**

3 Practicum Exams were utilized in assessing the skill level of the students in two areas of DBMS. The table below indicates the results.

| Skill | % Correct | #students < 70 | # students btw 70 and 90 | # students >=90 |
|---|---|---|---|---|
| Design | 85% | 2 | 9 | 5 |
| Implementation | 83% | 4 | 8 | 4 |

RELATED ITEM LEVEL 3

**Database Action**

**Action Description:**

Based on the findings from MGIS 3330 on **Design** and **Implementation** of DBMS, while the averages are above the 70% criteria, the number of students below 70 on the **implementation** is an indication that more emphasis should be placed on implementation. Problem-based learning will be explored with a possible semester end project to implement their own database design following additional homework assignments utilized to practice implementation skills and practical exams to reinforce implementation skills.

RELATED ITEM LEVEL 1

**Electronic Commerce**

**Learning Objective Description:**

Students who complete the BBA in Management Information Systems will demonstrate the ability to implement business oriented systems for electronic commerce and skills in using Internet technologies. (MGIS4320)

RELATED ITEM LEVEL 2

**Electronic Commerce Assessment**

**Indicator Description:**

Assessment will be conducted testing specific skills the students perform on assignments and exams. The assessment will be done in MGIS4320 - Electronic Commerce Implementation.

**Criterion Description:**

Students will average at least a 70% mastery level in the following areas:
XHTML, CSS, Graphics, and JavaScript.

RELATED ITEM LEVEL 1

**Information Systems**

**Learning Objective Description:**

Students who complete the BBA in Management Information Systems will demonstrate an understanding of basic computer technology concepts and the development and use of information systems in organizations. (MGIS3310)

RELATED ITEM LEVEL 2

**Information Systems Pre-Test And Post-Test**

**Indicator Description:**

Assessment will be made using pre-test and post- test performance on computer technology and the role of information systems in organizations. (MGIS3310)

**Criterion Description:**

The "Writing Style" element of our comprehensive exam rubric has 3 levels and descriptions of work in each level.

RELATED ITEM LEVEL 1

**Networking**

**Learning Objective Description:**

Students who complete the BBA in Management Information Systems will demonstrate an understanding of telecommunications services and networking technologies and skills in installing and managing networks within business organizations. (MGIS4350)

RELATED ITEM LEVEL 2

**Tests And Networking Project**

**Indicator Description:**

Assessment will be made using test performance on understanding of telecommunications services and networking technologies. A project will be used to assess skills in working as a team to install and manage a network. (MGIS4350)

**Criterion Description:**

The class average on individual test questions will be 70% correct. Test questions will be included on each unit examination. Seventy five percent of Management Information Systems majors will receive a score of at 70% on the Test and the Networking Project. Last year we handily met the criterion for the networking project but not the test.  We will be particularly interested to determine whether our interventions helped raise performance on the common test questions. (MGIS4350)

RELATED ITEM LEVEL 1

**Programming**

**Learning Objective Description:**

Students who complete the BBA in Management Information Systems will demonstrate the ability to analyze and define business problems from a programming perspective and an understanding of the basic concepts of programming, problem solving, and program logic. This includes the understanding of fundamental concepts of procedural, object-oriented, and event-driven programming paradigms and the ability to apply them to solve business problems. (MGIS2320)

RELATED ITEM LEVEL 2

**Programming Pre-Test, Post-Test, And Rubric**

**Indicator Description:**

Assume that students have little or no prior knowledge of the topics; assessment will be made using three examinations to evaluate both the understanding of fundamental concepts of the three programming paradigms (procedural, object-oriented, and event-driven) and the ability to apply them to solve business problems. Common multiple-choice questions will be used to assess the understanding, while coding problems will be used to assess the ability to apply. (MGIS2320)

**Criterion Description:**

The average across class sections on each exam will be 70% correct. The class average on the section testing the understanding of fundamental concepts of both procedural and object-oriented paradigms will be 70% correct. Also, the class average on the section testing the ability to apply the concepts of concepts of both procedural and object-oriented paradigms will be 70% correct. The class average on the exam on event-driven paradigm will be 70% correct; this last exam contains one coding problem, combining the understanding and application.  We are particularly interested to determine whether our interventions are working with the procedural paradigm, a weakness that emerged in 2010-2011. (MGIS2320)

**Findings Description:**

My findings on 2320 spring 2016 (n = 23):

Procedural programming

Understanding: 85%

Application: 84.26%

Object-oriented programming

Understanding: 79.34%

Application: 71.56%

Event-driven programming

Understanding and Application: 91.57%

These findings suggest that the students understood and were able to apply the concepts of all the three programming paradigms. More time given on the procedural programming section, an action based on the last assessment, appears to help the students do well on the exam. On applying the object-oriented programming concepts, the students, while passing the 70% criterion, should be able to perform better; as a result, more time and examples will be provided.

RELATED ITEM LEVEL 3

**Programming Action**

**Action Description:**

In the last Action Cycle we realized that additional emphasis (more homework and in-class exercises) would benefit the students. This proved to be the case for the **procedural programming concepts**. On applying the **object-oriented programming concepts**, the students, while passing the 70% criterion, should be able to perform better; as a result, more time and examples will be provided as was the case for procedural programming concepts. The challenge will be finding the right balance of time to spend on each topic.

RELATED ITEM LEVEL 1

**Systems Analysis And Design**

**Learning Objective Description:**

Students who complete the BBA in Management Information Systems will demonstrate an understanding of the design and application of information systems in business and a knowledge of the tools and processes used in systems analysis and design. (MGIS4340)

RELATED ITEM LEVEL 2

**Systems Analysis And Design Pre-Test, Post-Test, And Rubric**

**Indicator Description:**

Assessment will be made using pre-test and post-test performance on the design and application of information systems and the tools and processes used to achieve such designs. A rubric will be used to assess skills in systems analysis and design. (MGIS4340)

**Criterion Description:**

The class average on the vocabulary exam will be 70% correct.

The rubric is based on the four phases of development methodology. A draft version of each phase I-III deliverable is graded as well as a final version. Only one version of the phase IV deliverable is graded as this phase is an outline of deliverables (installation guidelines, recovery guidelines,etc.). Management Information Systems majors will receive a score of at least 70% on the Management Information Systems final draft rubric. (MGIS4340)

## Update to Previous Cycle's Plan for Continuous Improvement

**Previous Cycle's Plan For Continuous Improvement (Do Not Modify):**

Closing Summary

A meeting was held with the MGIS faculty and Dr. Gerald Kohers, department chair, in attendance. Assessments for the Systems Analysis & Design (MGIS4340) and Electronic Commerce (MGIS4320) courses were discussed.

Results from the Systems Analysis & Design (MGIS4340) course indicated that there were no issues with the vocabulary/terminology portion of the material. Results from the applied project material rubric review indicated that the weakest area of learning is the System Analysis phase which is made up of technical documentation such as Data Flow Diagramming. To supportthe learning process in this area and improve the pre-revision application of materialmore applied homework and inclass assignments will be developed and used.

The results from the Electronic Commerce (MGIS4320) course assessment shows the focus can now shift from XHTML to Javascript and Graphics. Additionally, graphic tool selection will be focused on to improve the Graphics Knowledge area.

**Update of Progress to the Previous Cycle's PCI:**
We will be reassessing these courses as follows:
MGIS 4340 is scheduled to be reassessed in Spring 2017.
MGIS 4320 is scheduled to be reassessed in Fall 2018.

What we did assess during the 2015-2016 cycles were:
1. Fall 2015:
a. MGIS3310 - Intro to MIS
b. MGIS4330 - Database II
Originally scheduled to be assessed in the Fall 2015, it was determined to move the assessment to Spring 2017 to look at the assessment from the new course and see how the split to the original MGIS4330 is working out. We wanted to have at multiple cohorts cycle through the split course scenario to reassess the second course. Database I was assessed in Spring 2016.
2. Spring 2016:
a. MGIS2320 - Programming
The Action item from the 2013-2014 action item was:
"A more detailed rubric is under development to help pinpoint specific areas of weakness in both the procedural and object oriented paradigm areas such as conditional statements, variable definitions, recognizing variable types, creating a class and understanding arrays. Additional tutoring support and exercises covering identified areas of weakness will then be added in future semesters based on the results from using the new rubric."

The results from the Spring 2016 assessment were "findings suggest that the students understood and were able to apply the concepts of all the three programming paradigms." Therefore the more detailed rubric seem to have made a positive impact.

The action item from Spring 2016 assessment: On applying the object-oriented programming concepts, the students, while passing the 70% criterion, should be able to perform better; as a result, more time and examples will be provided.
b. MGIS3330 - Database I
In the 2013-2014 cycle the decision was made to split a single data base class (MGIS4330) in to two classes. From the action written in 2013-2014: "We realized that more database work was needed to cover the material properly, resulting in the addition of a second required database class. The first course will cover database design and technical documentation such as Entity Relationship diagramming using the Microsoft relational database Access."

MGIS3330 is the first course, following the split of the MGIS4330 course, covering database design and technical documentation. The result of the assessment in the Spring 2016 indicates that more emphasis should be placed on the implementation activities for database design concepts and problem-based learning. The action item for the course is to increase emphasis on implementation activities with the reassessment to occur in Spring 2018.

## Plan for Continuous Improvement

**Closing Summary:**
The Programming **(MGIS2320)** and Systems Analysis & Design **(MGIS4320)** will be assessed in the Spring 2018 cycle.

Courses being assessed in the **2016-2017 cycle** are Intro to MIS **(MGIS3310-f2f)** and Networking **(MGIS4350)** in the Fall 2016 semester and Intro to MIS **(MGIS3310-Online)** and Systems Analysis & Design **(MGIS4340)** in the Spring 2017 semester.