



**DEPARTMENT OF BUSINESS**

**ASSURANCE OF LEARNING REPORT  
MIS MAJORS**

**FOR ACADEMIC YEAR 2011-12**

## 1. Introduction

This document describes the results from the assurance of learning exercises conducted by the MIS program in 2011-12. The complete assessment plans used by the Department of Business are described in three documents: *Assessment Plan for the Undergraduate Business Program*, *MIS Major Assessment Plan*, and *Assessment Plan for the MBA Program*. Each plan identifies program level learning goals (PLLGs) that are periodically assessed. These plans also specify rubrics for the assessment, processes for performing the assessment, processes for taking action on the assessment results, and processes for updating the assessment procedures. The latest assessment plans, were discussed and approved through a series of department and advisory board meetings in the Spring 2006. The assessment plans and the data generated are periodically reviewed for quality improvement.

MIS students also take part in the business program assessment process. This document only summarizes the results of the assessment unique to MIS students. The MIS learning goals (MISLG) are summarized below. The MISLGs assessed during 09-10 are stated.

Undergraduate MIS majors will be able to:

**\*MISLG1:** Document requirements of an information system using state-of-the-art modeling techniques.

**\*MISLG2:** Develop a data model that satisfies the third normal form (3NF).

**MISLG3:** Understand and apply the concepts of object-oriented systems.

**MISLG4:** Understand the design principles of computer network architectures and apply them to a business problem.

**MISLG5:** Understand project management principles and apply these principles to a practical situation.

**MISLGI:** Undergraduate MIS majors will be able to document requirements of an information system using state-of-the-art modeling techniques.

Course in which this learning goal is assessed: MIS 425: Systems Analysis and Design.

Course Embedded Activity for Assessment: An assignment that discusses the requirements of an information system in the form of a mini-case will be administered to the student. Each student is required to develop a use case diagram for the information system, develop use case descriptions, and present the business processes in the form of activity diagrams.

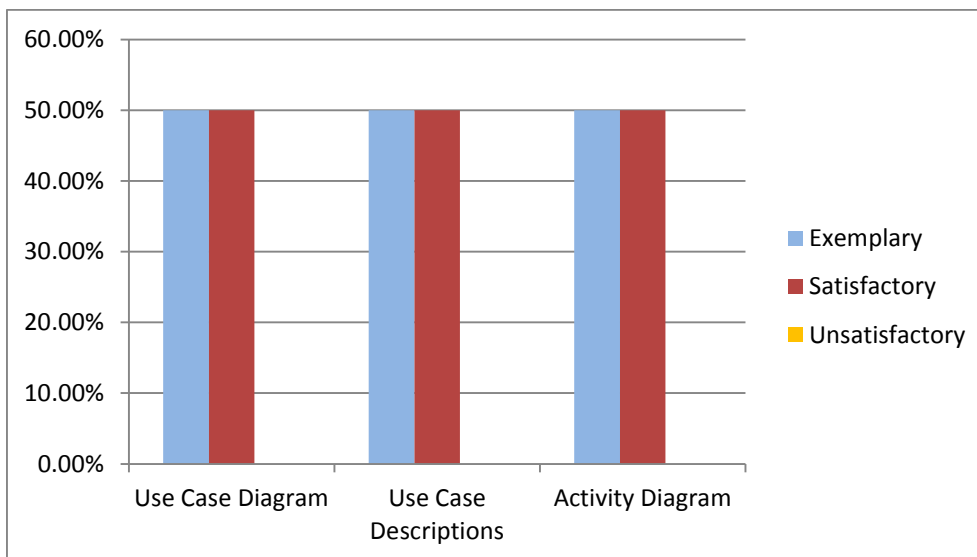
Assessment Rubric:

	Exemplary	Satisfactory	Unsatisfactory
Use Case Diagram	Student's use case diagram captures most of the requirements stated in the assignment and the use case diagram uses the correct symbols and terminology without errors.	Student's use case diagram captures more than 75% of the requirements stated in the assignment and more than 75% of the use case diagram uses the correct symbols and terminology.	Student's use case diagram reflects only 75% (or less) of the requirements, or 25% or more the student's use case diagram uses the incorrect symbols or terminology.
Use Case Descriptions	Student describes all use cases correctly by discussing normal business flows, associated actors and relationships.	Student describes more than 75% of the use cases correctly by discussing normal business flows, associated actors and relationships.	Student does not correctly describe 25% or more of the use cases.
Activity Diagrams	Student creates correct activity diagrams for all of the business processes described in the assignment.	Student creates correct activity diagrams for more than 75% of the business processes described in the assignment.	Student does not create (or creates incorrect) activity diagrams for at least 25% of the business processes described in the assignment.

The results are reported below:

## Results

	Exemplary	Satisfactory	Unsatisfactory	Total
Use Case Diagram	8 <b>50%</b>	8 <b>50%</b>	0 <b>0%</b>	16
Use Case Descriptions	8 <b>50%</b>	8 <b>50%</b>	0 <b>0%</b>	16
Activity Diagram	8 <b>50%</b>	8 <b>50%</b>	0 <b>0%</b>	16



### Comments:

- A more complete analysis of this MIS learning goal can be found in a separate document titled Assessment of an MIS learning Goal (see MIS Assessment Report LG 1.pdf).
- Six students did not turn in the analysis.

**MISLG2:** Undergraduate MIS majors will be able to develop a data model that satisfies the third normal form (3NF).

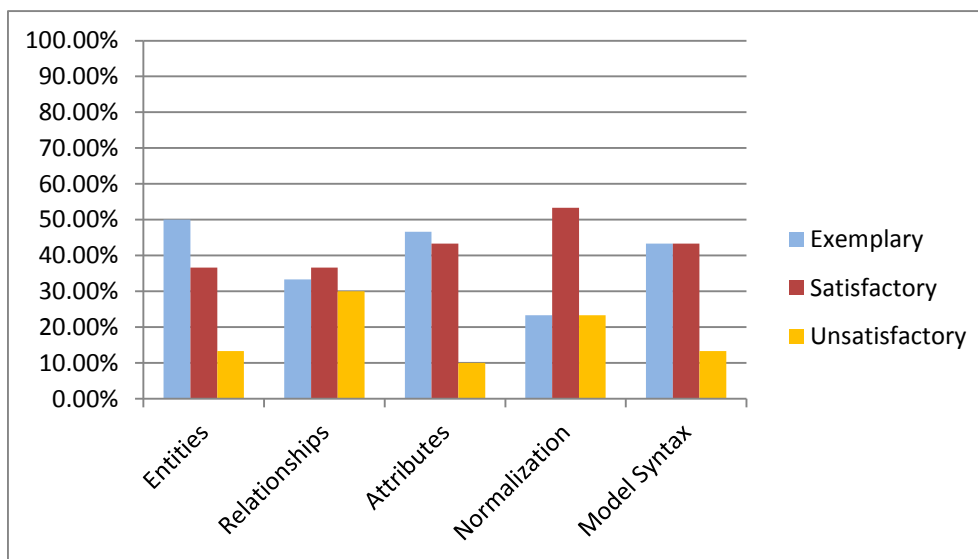
Course in which this learning goal is assessed: MIS 328: Database Management Systems.

Course Embedded Activity for Assessment: An assignment that discusses a business problem with several pieces of data that needs to be captured for the business will be administered to the student. Each student is required to develop a logical relational data model that satisfies the third normal form.

Assessment Rubric:

	Exemplary	Satisfactory	Unsatisfactory
Entities	Student's solution captures all of the entities that correspond to the data requirements mentioned for the business problem.	Student's solution captures more than 75% of the entities that correspond to the data requirements mentioned for the business problem.	Student's solution does not correctly identify at least 25% of the entities for the data model based on the requirements mentioned for the business problem.
Relationships	Student's solution captures all of the relationships among entities correctly.	Student's solution captures more than 75% of the relationships among entities correctly.	Student's solution does not correctly identify at least 25% of the relationships among the entities.
Attributes	Student's data model correctly identifies all of the attributes for the data model.	Student's data model correctly identifies more than 75% of the attributes for the data model.	Student's data model does not correctly identify at least 25% of the attributes for the data model.
Normalization	Student's data model satisfies the requirements of the third normal form.	Student's data model satisfies the second normal form, but does not satisfy the requirements of the third normal form.	Student's data model does not satisfy the requirements of the second normal form.
Syntax of the entity relationship models	Student's data model uses the correct syntax for the data model diagram without any errors.	Student's data model uses the correct syntax for more than 75% of the data model diagram.	Student's data model does not use the correct syntax for the data model diagram in at least 25% of the diagram.

	Exemplary	Satisfactory	Unsatisfactory	Total
Entities	15 <b>50%</b>	11 <b>37%</b>	4 <b>13%</b>	30
Relationships	10 <b>33%</b>	11 <b>37%</b>	9 <b>30%</b>	30
Attributes	14 <b>47%</b>	13 <b>43%</b>	3 <b>10%</b>	30
Normalization	7 <b>23%</b>	16 <b>53%</b>	7 <b>23%</b>	30
Model Syntax	13 <b>43%</b>	13 <b>43%</b>	4 <b>13%</b>	30



#### Comments

- Student scores have decreased from previous assessment. This may be due to a more difficult assignment. Results are based on three problems on the final exam.
- Action: Increased attention to database design in MIS 328.