

Departmental/Program Assessment Report Form 2016-17

Assessment reports will be completed through Qualtrics to make it easier to share and compile data across campus. The reporting questions will be similar to the questions used in the past, but with some additional detail requested in some areas to help us in collecting and analyzing college and institution-wide data on assessment practices. Your assessment reports will be maintained on file electronically on a password secure site (SharePoint). Other individuals on campus will have access to your reports.

Please complete one Assessment report per learning outcome that you are reporting on.

Name Please identify your department or program and the name of your assessment liaison:

Department/Program: Management Information Systems

Assessment Liaison: Suresh Chalasani

Report Prepared by: Narayanan Subramanian

Q1 1. What learning outcome did you assess for this report? (Reminder - if you assessed multiple learning outcomes this academic year, you should complete a separate report for each outcome.)

MISLG2: Undergraduate MIS majors will be able to design and develop a database that satisfies the third normal form (3NF). (Closely aligns with the shared learning goal **Reasoned Judgment**)

Q2 2. Which of the institution-wide shared learning goals does this outcome connect to?

- Communication (1)
- Reasoned Judgment (2)**
- Social and Personal Responsibility (3)

Q3 3. What assessment tool(s) or method(s) did you utilize? (Check all that apply)

- Survey (1)
- Standardized exam (2)
- Assignments from a course or courses (3)**
- Assignment from a course or courses (4)
- Student portfolios (5)
- Direct observation of student work or performance (6)
- Other (7) _____

Q4 4. What type of measurement did you utilize?

- Direct (asking students to demonstrate their learning) (1)**
- Indirect (asking students to self-report their perceived level of learning) (2)
- A combination of the above (3)

Q5 5. What type of methodology did you use?

- Qualitative (1)
- Quantitative (2)**
- A combination of the above (3)

Q6 6. What type of course delivery methods did you use to collect your data? If your assessment project is course-based, please identify the course delivery method.

- Face to face (1)**
- Online (2)
- Hybrid (3)
- Flex Option (Competency Based)
- A combination of the above (4)
- Other: Please Specify: _____

Q7 7. What was the process of analysis? How did you involve your department in the process of analysis? (100 words)

In MIS 328, students learn how to design and construct databases for business data and decision making. In fall 2019, adjunct professor Narayanan Subramanian used the following homework assignments to determine student proficiency in the corresponding rubric dimensions:

Entities & Attributes: Homework 7

Relationships: Homework 7

Normalization: Homework 6

Queries and Code: Aggregate score on labwork 1 thru 5 (all labwork)

In 2016, MISLG2 was revised to place a stronger emphasis on database development. The two versions of the learning goal are reproduced below:

MISLG2 prior to 2016: Undergraduate MIS majors will be able to develop a data model that satisfies the third normal form (3NF).

Revised Version (2016 and later): Undergraduate MIS majors will be able to design and develop a database that satisfies the third normal form (3NF).

Once they graduate, students are expected to design and construct databases in their work settings; thus, the MIS faculty felt that the revised learning goal more closely aligns with what the industry is expecting in terms of students' competencies. Because of this change, the rubric for assessment was also redesigned. The revised rubric evaluated student work along four dimensions (see Appendix A for rubric details): Entities & Attributes; Relationships; Normalization; Queries and Code. Student performance in homework assignments 6 and 7 and all labwork was analyzed using this rubric. Students who did not

submit the assignments were excluded. The learning goal, rubric, and the results from this assessment will be discussed with the department in Fall 2020.

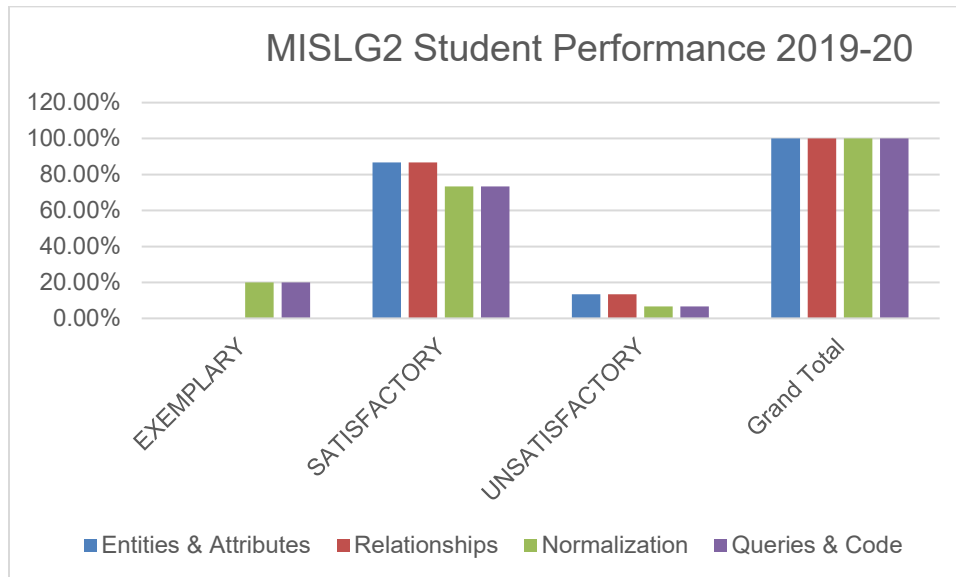
Q8 8. What were the results of this analysis? (250 words)

Student performance in various rubric categories is displayed in the tables below .

STUDENTS - RAW DATA

	EXEMPLARY	SATISFACTORY	UNSATISFACTORY	Grand Total
Entities & Attributes	0	13	2	15
Relationships	0	13	2	15
Normalization	3	11	1	15
Queries & Code	3	11	1	15
STUDENTS - PERCENTAGES				
	EXEMPLARY	SATISFACTORY	UNSATISFACTORY	Grand Total
Entities & Attributes	0.00%	86.67%	13.33%	100.00%
Relationships	0.00%	86.67%	13.33%	100.00%
Normalization	20.00%	73.33%	6.67%	100.00%
Queries & Code	20.00%	73.33%	6.67%	100.00%

These results are pictorially depicted in the graph below.



Overall, student performance in various rubric dimensions is very good. The unsatisfactory rates in various rubric dimensions range from 6% to 13%. Thus, the revised learning goal placed less emphasis on theoretical aspects of normalization and more emphasis on other aspects related to constructing the

database and developing queries and code. Further, queries and code was assessed using a series of labwork assignments; our MIS students are more proficient in hands-on activities and their performance in the queries and code dimension is a reflection of this. Student performance is lower (13% unsatisfactory) in the entities and attributes and relationships category. This is assessed using just one homework assignment and most of the homework is based on theoretical constructs related to database design. This dimension will be monitored in future reports.

Q9 9. How were results shared/discussed with your department/external stakeholders? (Check all that apply)

- Special faculty meeting (1)
- Part of a regular faculty meeting (2)
- Shared electronically (3)**
- Advisory board (4)
- Other (5)** _They will be discussed in a future Business department's undergraduate curriculum committee meeting. _____

Q10 10. As a result of your analysis, what changes will your department or program make to improve student learning? (250 words)

No changes are planned at this point.

Q11 11. Looking back at your last assessment report, what is the current status of the plan for improvement of student learning that was discussed in your past reports? (Check all that apply)

- Proposed (1)
- In consideration (2)
- Implemented (3)**
- Being assessed (4)
- Other (5)

Q12 12. Indicate all changes made to your program to improve student learning since the last assessment report you submitted. Some example changes include the following: Revising learning goals, outcomes and rubrics; Revising pre-requisites; Improving hands-on learning and labs; Introducing new courses; Changing emphasis on topics; Providing more tutoring help; Progressive measurement of the same learning goals in multiple courses; Redesigning assessment instruments such as assignments, exams, labs, and quizzes. (250 words)

The learning goal MISLG2 is revised to place a stronger emphasis on database development; the two versions of the learning goal are reproduced below:

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

Revised Version: Undergraduate MIS majors will be able to design and develop a database that satisfies the third normal form (3NF).

Reasons for the changes: Once they graduate, students are expected to design and construct databases in their work settings; thus, the MIS program faculty felt that the revised learning goal more closely aligns with what the industry is expecting in terms of students' competencies.

Because of this change, the rubric for assessment was also redesigned. The revised rubric evaluates student work along four dimensions (see Appendix A for the detailed rubric): Entities & Attributes; Relationships; Normalization; Queries and Code. To implement these changes, student performance in Fall 2016 was evaluated using practical questions related to constructing databases.

Further, MIS faculty designed, developed and taught a new course in data analytics that is directly related to this learning goal. In future, the data analytics course will be used to assess student performance in this learning goal.

Q13 13. Please write an abstract of no more than 250 words to summarize your assessment report this year. Your abstract should address items completed above, including which learning outcome was assessed, which data were collected and analyzed, how the department discussed the findings, and what changes are planned as a result of what was learned. In addition, please emphasize the changes made to your program since the last assessment report (see questions 11 and 12). This abstract will be the basis of the assessment poster that the OIE will generate for the Assessment Showcase, and will be used as an easy way to share a summary of your report with others on campus.

Abstract:

In MIS 328, students learn how to design and construct databases for business data and decision making. In fall 2019, adjunct professor Narayanan Subramanian used several homework & labwork assignments to determine student proficiency in the corresponding rubric dimensions: Entities & Attributes, Relationships, Normalization, Queries and Code (see Appendix A for rubric details). Students who did not submit the assignments were excluded. The learning goal, rubric, and the results from this assessment will be discussed with the department in Fall 2020. Overall, student performance in various rubric dimensions is very good. The unsatisfactory rates in various rubric dimensions range from 6% to 13%. Thus, the revised learning goal placed less emphasis on theoretical aspects of normalization and more emphasis on other aspects related to constructing the database and developing queries and code. Further, queries and code was assessed using a series of labwork assignments; our MIS students are more proficient in hands-on activities and their performance in the queries and code dimension is a reflection of this. Student performance is lower (13% unsatisfactory) in the entities and attributes and relationships category. This is assessed using just one homework assignment and most of the homework is based on theoretical constructs related to database design which may explain the slightly higher unsatisfactory percentage. This dimension will be monitored in future reports.

The deadline for submission of reports is May 31. (Note, if due to the timing of your data gathering you would like to request a different deadline, please contact the Institutional Research Office, John Standard, standard@uwp.edu. The Assessment Showcase this year will be held on November 3, 2017.

SPECIAL QUESTION RELATED TO DISTANCE EDUCATION COURSES:

If your program is delivered fully or partly via distance education (online, hybrid, or flex-option/competency-based), please indicate the assessment efforts/plans undertaken in distance education (DE) courses/programs. Please emphasize topics such as assessment plans for distance education courses/programs, assessment results for DE courses/programs. (No limit on the length)

MIS program is a face-to-face program and, except MIS 320 and PMGT courses, no courses are offered online. In future, assessment results from online sections of MIS 320 and PMGT courses will be shared.

Appendix A: Rubric to Measure Student Performance for MISLG2

Undergraduate MIS majors will be able to design and develop a database that satisfies the third normal form (3NF).

Criteria	Excellent 24 points	Very Good 22.5 points	Good 20 points	Unsatisfactory 14 points	Not Submitted 0 points
Entities & Attributes	Student's solution captures all of the entities and attributes that correspond to the data requirements mentioned for the business problem.	Student's solution captures about 90% of the entities and attributes that correspond to the data requirements mentioned for the business problem.	Student's solution captures 80-90% of the entities and attributes that correspond to the data requirements mentioned for the business problem.	Student's solution captures less than 80% of the entities and attributes that correspond to the data requirements mentioned for the business problem.	This aspect of the assessment was not submitted.
Relationships	Student's solution captures all of the relationships among entities correctly.	Student's solution captures most of the relationships among entities correctly.	Student's solution captures some of the relationships among entities correctly.	Student's solution does not capture any of the relationships among entities correctly.	This aspect of the assessment was not submitted.
Normalization	Student's data model satisfies the requirements of the third normal form.	Student's data model is close to the third normal form, but does not completely meet 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.	This aspect of the assessment was not submitted.
Queries and Code	Student's solution constructs all of the queries and the code correctly to read (write) information from (to) the database.	Student's solution constructs about 90% of the queries and the code correctly to read (write) information from (to) the database.	Student's solution captures 80-90% of the queries and the code correctly to read (write) information from (to) the database.	Student's solution captures less than 80% of the queries and the code correctly to read (write) information from (to) the database.	This aspect of the assessment was not submitted.
Overall Score	Excellent 95 or more	Very Good 90 or more	Good 80 or more	Unsatisfactory 0 or more	
	Excellent work.	Very good work.	Good work.	Student's work is below satisfactory.	