

## **Departmental/Program Assessment Report Form 2018-19**

Assessment reports will be completed through Qualtrics to make it easier to share and compile data across campus. The reporting questions are 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.*

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: Suresh Chalasani

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.)

**MISLG3:** Undergraduate MIS majors will be able to understand and apply the concepts of object-oriented systems. (Closely aligns with the shared learning goal **Reasoned Judgment**)

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

- Communication (1)
- **Reasoned Judgment (2)**
- Social and Personal Responsibility (3)
- Other (4)

3. Is this the first/initial assessment of the selected learning outcome? (select one):

- Yes
- **No**

If you answered yes, please skip Question 4 and move to Question 5. If you answered no, please move to question 4.

4. Which of the following best describes this assessment report (select one):

- Follow-up assessment related to curricular changes (closing-the-loop).
- Follow-up assessment to address issues with the previous assessment process (e.g. collect more data, redesigned the assessment tool, etc.).
- **Routine assessment of the outcome to verify previous findings (no curricular changes).**

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

- Survey (1)
- Standardized exam (2)
- **Exam 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) \_\_\_\_\_

6. 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)

7. What delivery mode did you use to collect your data? (Check all that apply)

- **Face to face course(s) (1)**
- Online course(s) (2)
- Hybrid course(s) (3)
- Flex Option (Competency Based) course(s) (4)
- Not tied to a course (5)
- Other: Please Specify: \_\_\_\_\_

8. What was the approximate sample size of this assessment (i.e. number of students assessed)? Fill in your answer here: **19**

9. Beyond the general details provided above, what student work was collected and how was it evaluated? The purpose of this question is to allow you to elaborate on the previous questions, and present the scope of the assessment and its relationship to student attainment of the specified learning outcome. Please reference the curriculum map, if used.

In MIS 322: Business Programming II, students learn how to design and implement object-oriented programs in the programming language C# .NET. In fall 2018, Prof. Chalasani used the programming assignments 6 through 10 and the final exam to collect assessment results for MISLG3. These programming assignments and the final exam primarily cover object-oriented programming concepts. A rubric with four dimensions was used to categorize student performance into three tiers: Exemplary, Satisfactory, and Unsatisfactory. The rubric (see Appendix A) was designed collectively by the MIS faculty and discussed in the MIS faculty meetings in prior years. However, due to faculty turnover and lack of sufficient full-time faculty resources, this particular learning goal (MISLG3) has not been consistently assessed. These

results will be shared with MIS faculty and CBEC administration, and will likely be discussed in a future department meeting.

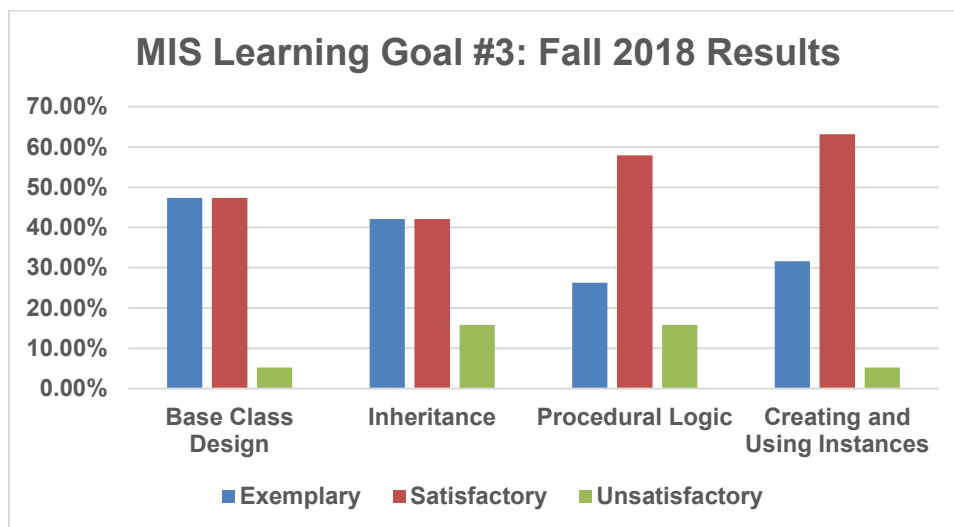
10. What were the results of this assessment? Please attach any supporting documents that you feel would be useful to the reviewers.

The following tables show the absolute number of students and percentages of students for each rubric dimension.

Rubric Dimension	Exemplary	Satisfactory	Unsatisfactory	TOTAL
Base Class Design	9	9	1	19
Inheritance	8	8	3	19
Procedural Logic	5	11	3	19
Creating and Using Instances	6	12	1	19

	Exemplary	Satisfactory	Unsatisfactory	TOTAL
Base Class Design	47.37%	47.37%	5.26%	100.00%
Inheritance	42.10%	42.11%	15.79%	100.00%
Procedural Logic	26.32%	57.89%	15.79%	100.00%
Creating and Using Instances	31.58%	63.16%	5.26%	100.00%

The following graph depicts the percentages pictorially.



Overall, student performance in various rubric dimensions is good. The unsatisfactory rates in various rubric dimensions ranged from 5% to 15%. “Procedural Logic” and “Inheritance” have the highest unsatisfactory rating; writing procedural logic and correctly using inheritance tend to be difficult for students. Students have to first design the base classes prior to progressing with almost any other aspects of object-oriented programming such as inheritance and creating instances. Perhaps because this fundamental concept was emphasized in the labs and the lecture by the instructor, it may be the reason why the student performance was very good in the “Base Class Design” rubric dimension (close to 95% of the students are in exemplary or satisfactory category). After “Base Class Design” the next less complex concept is creating and using instances. The student performance is very good in this dimension as well.

11. How were other instructors (faculty, lecturers, and adjuncts) involved with the assessment process?

There is only one section of this class offered per year. The rubric was designed by the MIS faculty a few years ago. However, a deeper discussion of the 2018-19 results among faculty is yet to take place.

12. As a result of this assessment, were any changes proposed? If yes, please describe and indicate the projected timeline. Please comment on any barriers to implementation.

No changes are planned at this point. These results are similar to the results obtained in 2017, though in 2017 the unsatisfactory rates for “Procedural Logic” and “Inheritance” were at 9%. Due to the small number of students, performance of one student equates to about 5% of the results; thus, if one student does not perform well, it leads to an additional 5% increase in the unsatisfactory percentage. Since this learning goal has been assessed after a significant gap, it may be better to collect results in future years (including 2019) before drawing conclusions on changes. The previous major change we made to the MIS program based on this learning goal was a few years ago, when we decided to teach C# .NET, in addition to VB .NET, as programming languages in the MIS program. Since fall 2017, the instructor implemented extensive number of lab hours to help students struggling with the programming concepts. This practice will be continued in future.

The deadline for submission of reports is **Wednesday, May 22, 2019**. (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 the November 8, 11:30-1:30 PM (lunch to be provided).

## Appendix A: Rubric to Measure Student Performance for MISLG3

### MISLG3: Object-Oriented Programming

Criteria	Exemplary 4 points	Satisfactory 3 points	Unsatisfactory 2 points	
<b>Base Class Design</b>	The base class solves the problem by correctly defining the needed variables and methods.	The base class solves the problem by correctly defining at least 75% of the needed variables and methods.	More than 25% of the variables and methods are incorrectly defined.	
<b>Inheritance</b>	The solution includes the required derived classes with correct use of overriding, inheritance and superclass methods. If the derived classes introduce redundant variables, methods or procedural logic already available in the superclass, it cannot be rated above satisfactory.	The solution includes the required derived classes with correct use of overriding, inheritance and superclass methods in at least 75% of situations.	More than 25% of the situations calling for overriding, inheritance and invocation of superclass methods are improperly defined.	
<b>Procedural Logic</b>	The solution correctly implements procedural logic throughout all methods.	The solution correctly implements 75% or more of the procedural logic.	Less than 75% of the procedural logic is implemented correctly.	
<b>Creating and Using Instances</b>	Students correctly create instances of their classes and use the methods of the classes to solve business problems.	Students correctly create instances of their classes and use the methods of the classes to solve business problems in 75% or more of the cases.	More than 25% of the time, students do not correctly create instances and use their methods.	
<b>Overall Score</b>	<b>Exemplary 14 or more</b>	<b>Satisfactory 11 or more</b>	<b>Unsatisfactory 6.5 or more</b>	<b>Fail 0 or more</b>