

Departmental/Program Assessment Report Form 2019-20

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: Business / QM 310- Business Statistics II, Spring 2020

Assessment Liaison: Prof. Parag Dhumal

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.)

Student will be able to evaluate issues and data and arrive at a comprehensive solution for a multidisciplinary business problem.

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.**

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: _____

QM 310-001: Face to Face – 25 students

QM 310-002: Face to Face – 29 students

QM 310-003: Online – 25 students

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.

Following rubric was used assess PLLG7 on scale rating scale of Exemplary, Satisfactory, and unsatisfactory.

- Understand problem
- Analyze information
- Propose Solution

Regression problem evaluation model fit was considered for this assessment. Problem is taken from final exam of the course.

Based on hypothesis students are evaluated on their level of understanding of problem, Based on test statistics and p value, they are evaluated on how information or data given in the

problem is analyzed by them. Based on conclusions (Reject or Fail to Reject Ho, Model should be used or not) they are evaluated on proposed solution.

In face to face students watched lecture and solved HW assignment problems. Online students were provided with instructor written notes and completed same set of HW assignment problems just like face to face students to practice their skills.

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

Subgroup of tenured faculties in this discipline was formed to discuss and conduct assessment for PLLG6 and PLLG7. The subgroup is also planning to present the results to the department of business in a future department meeting.

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.

Results obtained from this assessment are given in the table below. Tables provides percentwise comparison between different section and between face to face and online classes. In general we can conclude

- Most of the students falls under Exemplarity grade in all categories
- Mostly less than 10% students are under unsatisfactory grade with exception of Analyze information for online section. Students in online class find calculating test statistics and critical value challenging.
- Apart from that (above point) no notable difference in online vs face to face students.

Category		Exemplary	Satisfactory	Unsatisfactory	Total
Sec 001 F2F (n = 25)	Understand Problem	84.0%	12.0%	4.0%	100%
	Analyze Information	60.0%	36.0%	4.0%	100%
	Propose Solution	60.0%	32.0%	8.0%	100%
Sec 001 F2F (n = 29)	Understand Problem	93.1%	0.0%	6.9%	100%
	Analyze Information	69.0%	17.2%	13.8%	100%
	Propose Solution	55.2%	41.4%	3.4%	100%
F2F (n = 54)	Understand Problem	88.9%	5.6%	5.6%	100%
	Analyze Information	64.8%	25.9%	9.3%	100%
	Propose Solution	57.4%	37.0%	5.6%	100%
Sec 003 Online (n = 25)	Understand Problem	84.0%	8.0%	8.0%	100%
	Analyze Information	48.0%	32.0%	20.0%	100%
	Propose Solution	56.0%	40.0%	4.0%	100%

Results of our assessment are extremely satisfactory. One of the reasons being QM310 is core course with numerous sections taught per year over long period of time (10 years). It provides opportunities, though minor, for improvements. Since percentage of students in unsatisfactory category is small and variations among students from batch to batch is higher, future assessment results may not be able to accurately capture impact of changes suggested below. Nevertheless, pedagogy literature and commonsense suggest these changes will certainly help student learning and are in the direction where academia and technology is progressing.

Following changes should be incorporated in future design and delivery of course

1. Excel videos demonstrating statistical techniques , especially calculation of test statistics and critical value, should help to address online students' less satisfactory performance in information analysis category.