CALIFORNIA STATE
UNIVERSITY
E A S T   B A Y

College of Business & Economics

Assurance of Learning

Program Learning Objective (PLO): Quantitative Analysis
Winter 2016

BSBA
PLO 2; LO2A

BSBA Learning Goal 2: Students who graduate will be effective data driven decision makers.

Learning Objective:
LO2A: Students who graduate will understand and apply quantitative methods and tools in evaluating business problems.

Assessed Term: Winter 2016

Mapped Course:
MGMT 3100
> *Following re-mapping efforts in Spring and Summer 2013, two courses were identified as exhibiting mastery in data-driven decision making: (1) ITM 3060 and (2) ECON 3551. ITM 3060 was identified as the course for assessing Learning Objective 2B. Econ courses were experiencing major curriculum changes and could not be used to assess objectives. As a result, MGMT 3100 was selected for assessment based on previous mappings. Participating faculty in this assessment quarter were asked to analyze and review the mapping as it was revised at the end of 2013 academic year for accuracy or inaccuracies.*

Curriculum Alignment:
MGMT 3100: Decision Science (4 units) is a required core course for all students enrolled in the BSBA program. The course is a survey of statistical data analysis and management science models as they are applied for decision-making in organizations. Topics include: regression, correlation, forecasting models, linear programming applications, project management, simulation and decision analysis. Emphasis on usage of appropriate technology and applications of quantitative models. Prerequisites include MATH 1810; STAT 2010 or 1000; PC Software Proficiency satisfied.

Participating Faculty:
* 4 faculty members

Methods and Procedures:
Use of quantitative methods and tools were assessed using an assignment designed around the use of Excel and/or Access. All faculty members participating in assessment of learning objective agreed on a similar assignment from which to assess a sample.

The individual artifacts selected and used in the sample were determined through random selection, in order to prevent contaminating data through self-selection. Random selection will allow for a more accurate representation of the average student's proficiency levels on particular learning objectives. Random sampling also allows assessment personnel to reinforce the differences between grading an assignment and assessing proficiency levels of a particular skill.

Assessment Measurement Tool Used:
Faculty teaching the course mapped to the learning goal met as a group and were presented with the CBE version of the rubric and given an option modify the existing rubric or replace it entirely if the faculty had determined CBE's internally developed rubric was insufficient and weak.

The BSBA faculty group teaching MGMT 3100, the course mapped to quantitative analysis, unanimously voted to replace the existing rubric entirely with an alternative rubric. The faculty agreed that the externally modified AAC&U Quantitative Literacy rubric best fit the course and existing assignments. The faculty were informed this would be a starting point, with opportunities to modify and adjust the rubric to better fit CBE's program.

Status of Assessment: Completed.

Performance Targets:
- 70% of students will meet or exceed expectations.
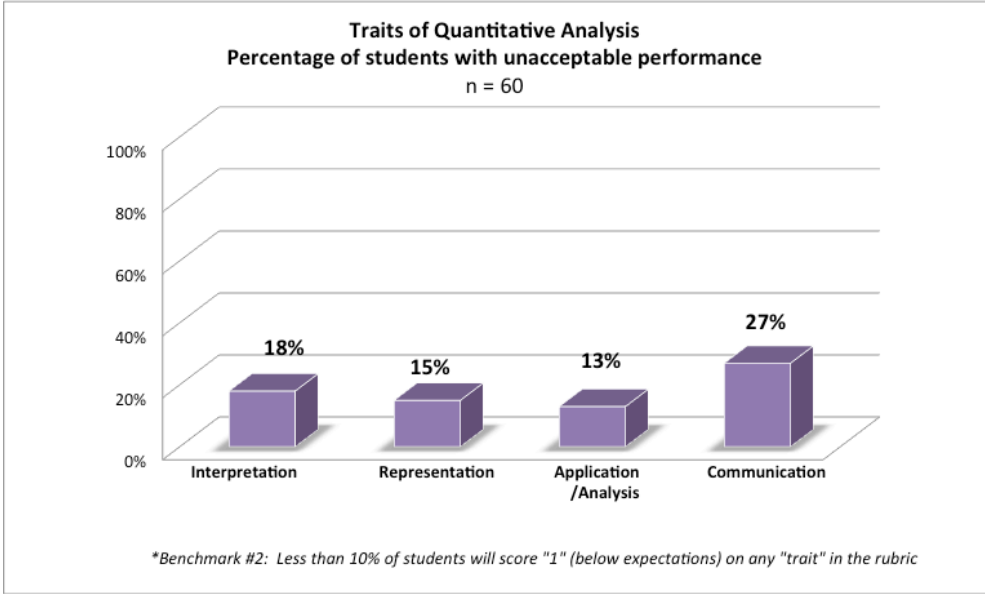- Less than 10% of students will score "1" (below) on any "trait" in the rubric.

Data Summary & Analysis:
There are two targets set for this skill, (1) 70% of students will meet or exceed expectations; and (2) less than 10% of students will score "1" (below expectations) on any "trait" in the rubric. Overall, 55% of students met expectations on the learning objective.

N = 60	Trait 1	Trait 2	Trait 3	Trait 4
Meets Expectations	57%	67%	55%	48%
Does Not Meet Expectations	43%	33%	45%	52%
Total	100%	100%	100%	100%
Overall Score	**55%**			

Our second benchmark involves the individual components (aka "traits") by which quantitative literacy is to be measured. These traits are outlined according to proficiency levels stated on the faculty-selected rubric used in the actual assessment. This second benchmark states that less than 10 percent of our students would score "below expectations" on any given trait.

More than 10 percent of students received a "below expectations" score for all individual traits. Students were found most weak in the area of communication, which consisted of "expressing quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized)." Slightly above a quarter of the students were assessed with "expression of quantitative information...missing or fail[ing] to support the understanding argument or purpose of the work." The second weakest trait found was "Interpretation." Assessed here was the ability to explain information presented in mathematical forms (e.g. equations, graphs, diagrams, tables, words)." Almost 20 percent of students were found to have "major errors."

Traits of Quantitative Analysis
Percentage of students with unacceptable performance
n = 60

Benchmark #2: Less than 10% of students will score "1" (below expectations) on any "trait" in the rubric

[End of Report]