CALIFORNIA STATE
UNIVERSITY
E A S T B A Y

College of Business & Economics

Assurance of Learning

Program Learning Objective (PLO): Quantitative Reasoning
Spring 2016

MSBA

PLO2; LO2A

MSA Learning Goal 2: Students who graduate will be knowledgeable in quantitative methods and tools of business analytics.
(Learning goal statement was revised during 2015-2016 quarter-to-semester conversion process.)

CBE Learning Objective:
Students who graduate will build expertise in quantitative methods and tools for business analytics.
(Learning goal statement was revised during 2015-2016 quarter-to-semester conversion process.)

Mapped Course:
MGMT 6165 (Units: 4)

Curriculum Alignment:
Determining the best solution among various choices, suggesting decision options, and illustrating the implications of each option. Topics include: optimization methods, decision-making under uncertainty, queuing models, simulation, and application-based software. Prerequisites: MGMT 6015 or consent of instructor. Grading: A-F grading only.

Participating Faculty:
1 faculty member

Methods & Procedures:
Faculty chose individual student assignment to assess using the department developed rubric.

Assessment Measurement Tool Used:
Rubric developed by department.

Artifact Used:
To assess quantitative reasoning, faculty chose an individual excel case study assignment.
Excel case study.

Artifacts Archived:
Completed. Electronically archived.

Status of Assessment:
Completed.

Performance Targets:
70% of students will meet/exceed expectations.

(See data analysis on following page.)

Data Summary & Analysis
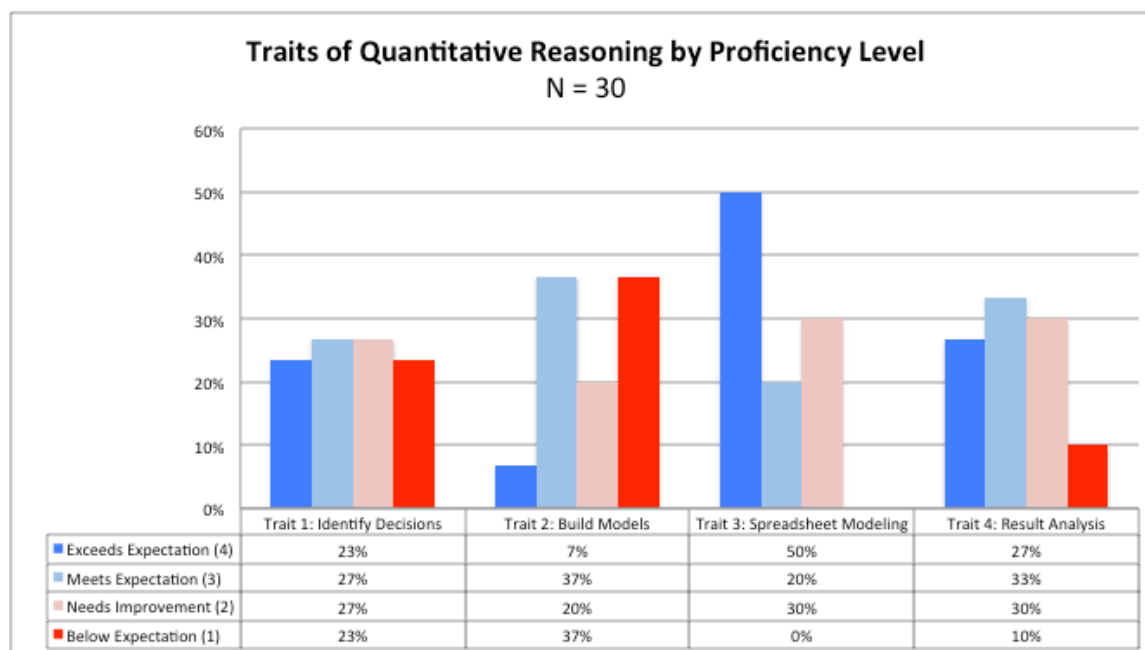
Overall Assessment Scores by Individual Trait:

Assessed Traits n = 30	Meets Expectation*	Below Expectation**
Trait 1: Identify Decisions	50%	50%
Trait 2: Build Models	43%	57%
Trait 3: Spreadsheet Modeling	70%	30%
Trait 4: Result Analysis	60%	40%

* Meets expectations = Meets expectations + Exceeds expectations
**Below Expectations = Needs Improvement + Below expectations

Detailed Assessment Scores by Individual Trait*:

n = 30	Trait 1: Identify Decisions	Trait 2: Build Models	Trait 3: Spreadsheet Modeling	Trait 4: Result Analysis
Exceeds Expectation (4)	23%	7%	50%	27%
Meets Expectation (3)	27%	37%	20%	33%
Needs Improvement (2)	27%	20%	30%	30%
Below Expectation (1)	23%	37%	0%	10%

Traits of Quantitative Reasoning by Proficiency Level
N = 30

	Trait 1: Identify Decisions	Trait 2: Build Models	Trait 3: Spreadsheet Modeling	Trait 4: Result Analysis
Exceeds Expectation (4)	23%	7%	50%	27%
Meets Expectation (3)	27%	37%	20%	33%
Needs Improvement (2)	27%	20%	30%	30%
Below Expectation (1)	23%	37%	0%	10%

*Percentages may not add to 100% due to rounding.

Quantitative Reasoning Rubric

MSBA: Quantitative Reasoning				
Learning Goal 2	Students who graduate will be knowledgeable in quantitative methods and tools of business analytics.			
Learning Objective 2A	Students who graduate will build expertise in quantitative methods and tools for business analytics.			
Trait	**Below Expectation** **1 pt**	**Meet Expectation** **2 pts**	**Above Expectation** **3 pts**	**Outstanding** **4 pts**
Capability to identify key decisions in business problems. (Final)	Correctly identify less than 70% of all key decisions.	Correctly identify 70% of all key decisions.	Correctly identify 85% of all key decisions.	Correctly identify all the key decisions.
Capability to build a mathematical model for business problems. (Final)	Build a mathematical model that captures less than 60% of all considerations.	Build a mathematical model that captures 60% of all considerations.	Build a mathematical model that captures 80% of all considerations.	Build a perfect or near perfect mathematical model.
Capability to build spreadsheet model that matches its mathematical model and to use tools such as Solver to find solution(s). (Case)	Build a perfect spreadsheet model that matches its mathematical model with major errors.	Build a perfect spreadsheet model that matches its mathematical model without major errors.	Build a perfect spreadsheet model that matches its mathematical model with 1-2 minor errors.	Build a perfect spreadsheet model that matches its mathematical model.
Capability to interpret, analyze and communicate the results clearly. (Quiz)	Answer less than 60% what-if questions correctly and clearly.	Answer 60% what-if questions correctly and clearly.	Answer 80% what-if questions correctly and clearly.	Answer 90% or more what-if questions correctly and clearly.

(See raw assessment scores on following page.)

Raw Assessment Scores

Instructor	Student	Trait #1	Trait #2	Trait #3	Trait #4
Instructor 01	Student 001	4	3	4	4
Instructor 01	Student 002	4	3	3	4
Instructor 01	Student 003	3	3	4	3
Instructor 01	Student 004	3	3	3	3
Instructor 01	Student 005	1	1	2	3
Instructor 01	Student 006	2	1	4	2
Instructor 01	Student 007	1	1	2	2
Instructor 01	Student 008	3	3	4	3
Instructor 01	Student 009	1	1	2	2
Instructor 01	Student 010	3	2	4	4
Instructor 01	Student 011	4	3	4	2
Instructor 01	Student 012	4	3	3	3
Instructor 01	Student 013	1	1	2	1
Instructor 01	Student 014	3	3	2	3
Instructor 01	Student 015	1	1	4	1
Instructor 01	Student 016	2	1	4	3
Instructor 01	Student 017	2	2	4	4
Instructor 01	Student 018	2	2	4	2
Instructor 01	Student 019	2	3	4	4
Instructor 01	Student 020	2	1	4	3
Instructor 01	Student 021	4	3	4	4
Instructor 01	Student 022	3	2	3	2
Instructor 01	Student 023	2	2	2	2
Instructor 01	Student 024	1	1	2	1
Instructor 01	Student 025	1	1	2	2
Instructor 01	Student 026	4	2	4	4
Instructor 01	Student 027	3	3	2	3
Instructor 01	Student 028	4	4	4	4
Instructor 01	Student 029	3	4	3	2
Instructor 01	Student 030	2	1	3	3

End of Report