

JOHN A. LOGAN COLLEGE
Summary of Assessment Results for Quantitative Reasoning
Fall 2015 – Spring 2017

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QUANTITATIVE REASONING								
	Fall 2015		Spring 2016		Fall 2016		Spring 2017	
	Total Assessed	% Assessed	Total Assessed	% Assessed	Total Assessed	% Assessed	Total Assessed	% Assessed
Courses Mapped	29	72%	31	74%	28	89%	26	96%
Courses Sections	63	76%	70	66%	58	86%	49	77%
Students	621	---	562	---	896	78%	665	63%
Full-Time Instructors	17	88%	21	71%	12	92%	10	91%
Part-Time Instructors (including SICCM)	15	67%	15	60%	17	88%	14	78%
Dual Credit Instructors	n/a		n/a		3	67%	0	0%
STUDENT PROFICIENCY ¹								
	Fall 2015		Spring 2016		Fall 2016		Spring 2017	
Interpretation	69%		74%		66%		72%	
Organization and Presentation	81%		79%		77%		76%	
Calculation	74%		78%		71%		74%	
Analysis/Synthesis	66%		78%		66%		71%	

¹Student proficiency includes students who score a 3 or 4 on a 4-scale basis.

During Spring 2019, the Assessment of Student Learning Quantitative Reasoning team members reviewed and analyzed the results for the Quantitative Reasoning cycle consisting of Fall 2015, Spring 2016, Fall 2016, and Spring 2017. Quantitative Reasoning was the second Student Learning Outcome (SLO) to complete the four-semester cycle. Students were scored on a scale of 1 to 4 in four categories:

- **Interpretation:** Ability to explain mathematical information presented in various forms (equations, graphs, diagrams, tables, words, etc.)
- **Organization & Presentation:** Ability to organize and present relevant information in various mathematical forms (equations, graphs, diagrams, tables, words, etc.)
- **Calculation**
- **Analysis/Synthesis:** Ability to make and draw conclusions based on quantitative analysis

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STUDENT PROFICIENCY

A student was considered successful in a category if they received a score of 3 or 4. Comparing scores in Fall 2015, the first semester in the assessment cycle, to scores in Spring 2017, the last semester in the assessment cycle, overall student proficiency increased in the Interpretation and Analysis/Synthesis categories, with the most notable increase in Analysis/Synthesis. Student proficiency in calculation remained the same; however, student proficiency in Organization and Presentation decreased.

FACTORS IMPACTING RESULTS

There were several factors that impacted results during the first assessment cycle of Quantitative Reasoning. First, there was fluctuation in the courses mapped to Quantitative Reasoning. As courses were assessed, it was discovered that some courses fit better in a different SLO. At the beginning of the assessment cycle, 29 courses were mapped to Quantitative Reasoning. As of Spring 2017, 26 courses are mapped to Quantitative Reasoning. Second, there was a significant decrease in the number of sections assessed in Spring 2016. After further investigation of the Quantitative Reasoning Assignment Submission spreadsheet, it is believed this decrease was due to the reduction in force that occurred in Spring 2016 due to lack of state funding. Many of the full-time faculty members who were affected by the reduction in force either did not give the assessment or did not submit results from the assessment. Therefore, the data for Spring 2016 was incomplete.

CONTINUED IMPROVEMENT

One of the biggest places for improvement during the next cycle is instructor participation. The Quantitative Reasoning team members would like to see 100% instructor participation by the end of the next assessment cycle, Fall 2020 to Spring 2022. Instructor participation includes full-time instructors, part-time instructors, and dual credit instructors. To accomplish this goal, team members will speak with instructors who are teaching courses mapped to Quantitative Reasoning at the beginning of each semester in the assessment cycle. We may also call on other full-time faculty members, department chairs, the Associate Dean of Academic Affairs, and the Associate Dean of Career and Technical Education to assist with achieving this goal.