

SYNOPSIS OF FALL 2015 ASSESSMENT

Students will work with graphical, numerical or symbolic models to solve problems and interpret results.

Fall 2015 Quantitative Reasoning assessment involved:
53 course sections, 822 students, and 19 faculty

Methodology of Assessing Institution-level Student Learning Outcomes (ISLOs)

Program chairs, each responsible for guiding the continuing success of an academic degree program at the college, detailed required coursework within their program where students are introduced to and develop mastery of each ISLO.

Faculty from disciplines and programs across DCC reviewed ISLO requirements and discussed ways that the ISLO is introduced, reinforced, and mastered by students at various levels.

Faculty developed a shared rubric and guidelines for assessing student competency within specified required courses with rating levels: Beginning, Developing, Meeting, and Exceeding.

Participating faculty applied the rubric to student work in fall 2015.

A designated faculty member served as ISLO leader to collect, organize, and analyze data from faculty using the rubric.

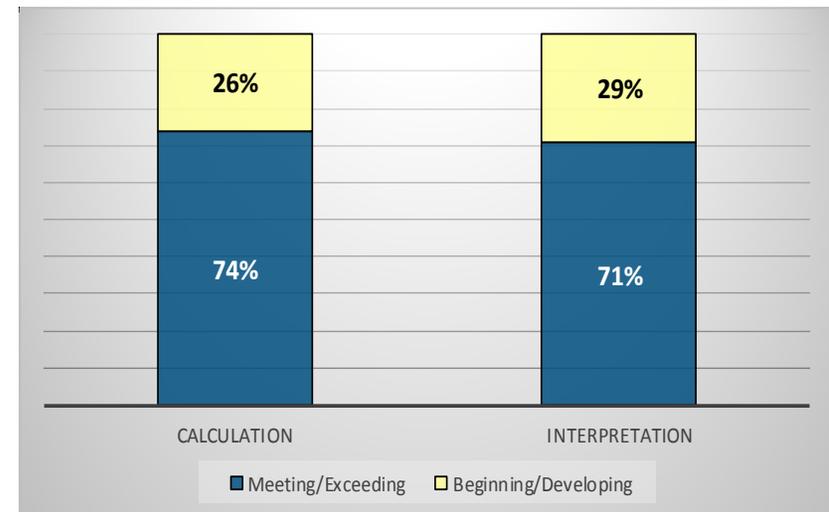
Participating faculty reviewed the results and analysis, and collaborated on final recommendations.

Recommendations Based on Assessment of All Six Institution-level Student Learning Outcomes

- Limit class size to increase student success in achieving and excelling in the institution-level student learning outcomes.
- Provide support and time for faculty to meet across programs/disciplines so that strategies can be developed and implemented that support student success in achieving and excelling in the institution-level student learning outcomes.
- During next assessment cycle, consider (1) norming sessions and/or holistic scoring, (2) capturing information about students who do not persist to semester's end, and (3) analysis that allows comparisons between achievement early and late in college career at DCC.

Findings and Conclusions

The Quantitative Reasoning rubric identified two standards to assess for quantitative reasoning: calculation and interpretation. The graphic below indicates the percentage of students either meeting or exceeding the standard compared to the percentage of students who either did not meet the standard or at beginning stages of development.



Overall, at an institutional level, 74.2% of the assessed students met the standard on the "calculation" component, and 70.8% of students met the standard on the "interpretation" component. Extensive analyses were done that drilled down deeper so that trends were noted among specific course groupings. Overall however, faculty were not satisfied with the institutional definition of quantitative reasoning and the method of applying the definition across the institution and its academic programs.

Recommendations Specific to Quantitative Reasoning ISLO

- Engage the college community in developing clearly defined "institutional" quantitative reasoning requirements at DCC with a "basics skills" component and a program-specific "overlay" component.
- Edit Quantitative Reasoning ISLO and rubric based on college-wide discussion.
- Support initiative to infuse quantitative reasoning across the curriculum.
- Since many of our students experience math at DCC through the math pathway including CSM094--MAT091/092-MAT118, undertake an effectiveness study of students to determine if student achievement in this pathway can be improved.