

Quantitative Reasoning – The application of mathematical, logical and statistical skills to interpret data and produce new information.

Competency Level	Demonstrated Behavior	Associated Skills	Example
Level I <i>Basic Experience</i>	Performs basic computations to solve problems using correct mathematical techniques.	Analysis Quantitative Literacy Computational Fluency	Matt needed to determine how much equipment would be required in the training rooms versus on the field, based on the number of students in each location. He calculated how many people he would need to help move the heavier equipment into place.
Level II <i>Practical Application</i>	Uses mathematical skills and reasoning to guide decisions on the job.	Analysis Quantitative Literacy Computational Fluency Forecasting Foresight Planning	Emily was hired to be the Event Coordinator for the Spring semester. For an upcoming event, she was asked to create a project plan to include the estimated number of volunteers needed based on past events, a budget projection for promotional marketing materials, and anticipated revenues at the end of the project.
Level III <i>Advanced Application</i>	Uses mathematical skills and other data to support findings and execute plan. Links related issues together to see pattern or trend to solve problems.	Analysis Quantitative Literacy Computational Fluency Forecasting Foresight Planning	The Facilities department hired Joe to work on a project requiring CAD & Data Entry experience. Joe read and interpreted numerous planning documents and gathered requirements for the program. He calculated measurements for each building and the future requirements based on the plans. By translating the information into graphs and charts, Joe effectively represented the data the department needed.
Level IV <i>Subject Area Expertise and Application</i>	Able to construct, apply and present logical applications for mathematics using tables, graphs, diagrams or charts.	Analysis Quantitative Literacy Computational Fluency Forecasting Foresight Planning Verbal Communication Written Communication	As a Teaching Assistant, Louisa helped students develop their quantitative skills in data analysis and graph interpretation. Louisa coached students to think of the best ways to represent their data that would tell the story using tables, graphs, diagrams or charts. Louisa helped students use their basic mathematics and statistics skills to interpret, draw conclusions, and solve problems based on the student's data.
Level V <i>Mastery and Extensive Application</i>	Ability to think critically and apply mathematics and statistics skills to interpret data, draw conclusions, and solve problems. Illustrate data using tables, graphs, diagrams or charts. Make decisions based in statistical analysis.	Analysis Quantitative Literacy Computational Fluency Forecasting Foresight Planning Verbal Communication Written Communication	Angela's extensive knowledge of the department's work helped her create insightful web presentations that presented the information clearly and accurately. As the head Data Analyst, she designed archives for the Data Warehouse and analyzed department data for presentation to the college administration. She was able to use her quantitative skills combined with her strong communication skills to represent the data in a logical, engaging and practical presentation for her audience.