

Revised QR Learning Goals:

- **(Knowledge and Conceptual Understanding):** Students will be able to translate a problem statement based on a daily life issue into a conversion-factor algorithm or strategy, and solve it. This will be developed during Chapter 1. Subsequently in the course, during Chapter 4, students will be able to use conversion-factor strategies to solve problems based on amount of moles, amount of grams and amount of molecules for each compound involved in a chemical reaction. Students should also know the difference between these three concepts and the relation among each other.

- **(Thinking and Other Skills):** Students will be able to develop a strategy useful to translate daily life scenarios into a conversion-factor algorithm (Chapter 1) and subsequently, translate proportional amount of grams, moles and molecules involved in a balanced chemical reaction into a conversion factor algorithm (Chapter 4).

- **(Attitudes, Values and Habits of Mind):** Students will learn to assess whether calculations based on daily-life situations and calculated amounts of grams, moles and molecules in balanced chemical reactions make sense and ultimately will be able to evaluate the accuracy of their results.

Student performance based on Chapter 1 development will be evaluated in Exam I and Final Exam. Student performance based on Chapter 4 development will be evaluated in Exam II and Final Exam.