

Syllabus for UWX MA108: Quantitative Reasoning

NOTE: This syllabus document contains the basic information of this course. The most current syllabus is available in the full course.

Course Description

This course is designed to teach students mathematical skills needed for informed decision making. Its emphasis is on mathematical reasoning and its practical application in a variety of contexts.

Quantitative Reasoning develops a habit of mind, competency, and comfort in working with numerical data. Students will learn to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations, develop the ability to reason mathematically, and make and evaluate logical arguments supported by quantitative evidence.

Prerequisite(s)

Grade of C or better in UWX MA091 or placement into UWX MA108.

Course Outcomes

Upon completing this course, you will be able to do the following:

- Identify appropriate models to fit scenarios described with numerical data and/or verbal descriptions, predict outcomes and draw conclusions in real-world contexts using a model, and explain the limitations of mathematical models in those contexts.
- Interpret and construct expressions and equations in various contexts.
- Create and evaluate arguments supported by quantitative evidence while clearly communicating those arguments using words, tables, graphs, mathematical equations, etc., as appropriate.
- Compare and contrast linear and exponential models in practical problems.
- Construct and interpret graphical displays of data and describe how they can be used and misused.
- Select measures and techniques from descriptive statistics and probability in decision-making contexts.
- Apply proportional reasonings in a variety of sophisticated contexts.
- Employ number sense via estimation, comparisons, magnitude, and attention to appropriate accuracy in all the above.

Course Requirements/Components

Graded Exercises

Graded Exercises for each lesson will be completed in MyLabs Math. You will have an unlimited number of attempts on each problem. Graded exercises must be completed on time.

Discussions

The discussions in this course require two postings. Step 1 is to post your initial answer to the discussion question or topic. Step 2 is to post a substantive response to **at least one** of the postings made by one of your classmates. A simple “good job” or “I agree” is not considered substantive and will not earn you the points.

Projects

There will be three projects spaced throughout the semester. These projects will help you to apply the concepts we are learning about finance, construction of graphs and probability to your life.

Quizzes

At five points in the course, beginning in Lesson 6, you will be asked to take a quiz in MyLabs Math. The quizzes will have a time limit of 90 minutes and will be proctored using the online proctoring system, Proctorio.

Final Exam

The final exam will be cumulative, covering Units 1 through 8. The exam will be in MyLabs Math and will be proctored by Proctorio.

Grading

The following grading scale will be used to evaluate all course requirements and to determine your final grade:

Grade	Percentage Range
A	93% - 100%
A-	90% - 92%
B+	87% - 89%
B	83% - 86%
B-	80% - 82%
C+	77% - 79%
C	73% - 76%
C-	70% - 72%

D+	67% - 69%
D	60% - 66%
F	59% and under

Assignment	Points
Graded Exercises	250
Discussions	80
Projects	75
Quizzes	250
Final Exam	200
Total Points	855