

QR at MMCC

MAT 114- Mathematical Reasoning

Created: March 2014 by the math faculty at Mid Michigan Community College.
Goal was to create a course that was a third track of the MTA and a revised Gen Ed program

Credit hours: 3 credit hours

Prerequisite: Grade of C or better in MAT 104 (Intermediate Algebra) or equivalent.

Course Description: Provides a course for students majoring in fields that do not have a specific mathematics requirement. Emphasizes practical applications of mathematics, problem solving, and the communication of mathematics. Topics include Financial Mathematics, Growth Models, Probability and Statistics, and Voting and Apportionment. Topics determined by the instructor will also be in the course. These topics may include graph theory, game theory, set theory, logic, linear algebra, economics, or other approved topics.

Role of Course: This course satisfies the quantitative reasoning requirement for the General Education component of many degrees and satisfies the Michigan Transfer Agreement's (MTA) quantitative reasoning requirement.

Who should take the course? Benefit anyone. Students not going to the college algebra/calculus path and not going on the statistics path should take this course.

Course Objectives:

Material Objectives: Students should be able to do material objectives from each of the four units.

1. Financial
2. Pure Math
3. Allotment
4. Stats and Modeling

General Objectives: This course is designed so that at the end of the semester students should be able to

1. Communicate mathematical and statistical information symbolically, visually, and/or numerically
2. Communicate a quantitative argument in writing
3. Determine what computations are needed to solve a problem and accurately execute the computations
4. Apply an appropriate model to a problem to be solved
5. Assess limitations in various areas of mathematics

Text: MAT 114 Workbook (Created by MMCC faculty)

Materials: The TI-30 XIIs calculator is required for this course.