OFFICIAL SYLLABUS
QR 101 – QUANTITATIVE REASONING
Adopted – Spring 2018; Effective – Summer 2014

Catalog Description: Focuses on mathematical reasoning and real-life problems. Including management science, coding, social choice and decision making, size and shape, and modeling.

Textbook:
Math in Our World – A Quantitative Reasoning Approach (First Edition © 2017) with ALEKS
Dave Sobecki and Brian Mercer
ISBN 978-1-259-82757-0
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Course Outline and Topics:

Chapter 2: Managing Money
        2-1 Percents
        2-2 Budgeting
        2-3 Simple Interest
        2-4 Compound Interest
        2-5 Loans & Annuities
        2-6 Home & Student Loans

Chapter 4: Introduction to Statistics
        4-1 Gathering Data
        4-2 Representing Data
        4-3&4 Average and Variation
        4-5 Rank and Box Plots
        4-8 Scatter Plots/Correlation

Chapter 8: English and Metric Measurements
        8-1 Length
        8-2 Area Volume Capacity
        8-3 Weight & Temp
        8-4 Surface Area

Learning Objectives:
After completion of the course, students will be able to
• Interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences from them
• Represent mathematical information symbolically, visually, numerically, and verbally
• Use arithmetical, algebraic, geometric, and statistical methods to solve problems including, but not limited to personal budgeting, finances, savings, investments, taxes, and various social issues
• Estimate and check answers to mathematical problems in order to determine reasonableness, identify alternatives, and select optimal results
• Recognize errors and abuses of numbers
• Recognize the limitations of mathematics and statistics

Any instructor should cover all the above material. Additional sections and chapters are optional.