

I. COURSE INFORMATION

- A. Mathematics 130 Essential Mathematics
- B. 3 Credit Hours
- C. Bennett, Jeffrey O., and William L. Briggs. *Using and Understanding Mathematics: A Quantitative Reasoning Approach*. 7th ed. New Jersey: Pearson, 2019
- D. Recommended placement prerequisite: ACT math score 18 or above, or the equivalent
- E. Prerequisites: None
- F. KRSN: MAT 1040 Contemporary Math/Quantitative

The learning outcomes and competencies detailed in this course outline or syllabus meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Groups project for this course as approved by the Kansas Board of Regents.

II. COURSE DESCRIPTION

This course will focus on the mathematical skills and knowledge required for quantitative literacy. Topics will include understanding numerical relationships, financial mathematics, probability, and data analysis and statistics. The course will emphasize the development of critical thinking and quantitative reasoning skills necessary to understand major issues in society.

III. LEARNING OUTCOMES

- A. Apply critical and logical thinking skills to various applications
- B. Apply estimation and an understanding of numbers to various applications
- C. Apply generalizations, principals, theories, or rules to the real world
- D. Use statistics for decision making
- E. Demonstrate basic concepts of probability and risk
- F. Apply mathematical tools to financial applications
- G. Apply mathematics to the study of social issues
- H. Apply mathematics to applications across many different disciplines

IV. MAJOR CONTENT AREAS

- A. Numerical relationships
- B. Financial mathematics
- C. Probability
- D. Data analysis and statistics

V. ASSIGNMENTS (may include but are not limited to)

- A. Reading assignments
- B. Homework
- C. Quizzes and exams
- D. Individual and/or group projects

VI. EVALUATION METHODS (may include but are not limited to)

- A. Attendance and participation
- B. Assignments
- C. Homework problems
- D. Quizzes and exams
- E. Comprehensive final