

**SYLLABUS – MATH 112**  
**CONTEMPORARY MATHEMATICS**  
**SPRING 2020**

**Instructor: Christopher Rick**

**TEXTBOOK:** Thinking Mathematically by Robert F. Blitzer

**COURSE DESCRIPTION:**

The course is designed to develop the student's understanding foundational skills and topics in mathematics, which includes arithmetic, algebra, geometry, data analysis and quantitative reasoning.

**OBJECTIVES - DESIRED STUDENT LEARNING OUTCOMES:**

The student will be able to demonstrate each of the following skills in writing on one or more tests without referring to notes, textbook, or other resources:

1. Apply deductive, inductive and intuitive reasoning in mathematics and problem solving
2. Apply the basic principles of logic and sets
3. Convert and perform basic operations in different bases
4. Apply the basic principles of geometry
5. Find the perimeter, area, surface area, and volume of given figures
6. Solve problems involving probability
7. Interpret information using data and statistical graphs
8. Calculate and apply the measures of central tendency and variation

**INTEGRITY:**

Each student must show his own work on all assignments and tests. Copying someone else's work, or allowing your work to be copied, is not acceptable. If there is evidence of cheating or inappropriate sharing of information, each student involved will be penalized, in most cases receiving a zero.

**HOMEWORK:**

Homework exercises are very important because learning is most effective when the student has frequent and repeated practice in applying skills. Each assignment will be due at the beginning of the next class. Assignments should be neat, legible (easy to read), and well organized, with problem numbers clearly labeled, and all work shown.

**GRADING:**

Your final grade in the course will be weighted as follows: Weekly homework assignments (50%), Midterm Exam (25%), and Final Exam (25%).

## PLANNED SCHEDULE

I reserve the right to rearrange the scheduled as needed and as I best see fit. The topics listed for each class session align with the chapters in Blitzer, though not in the same order.

January 27	Pre-Assessment and Introduction
February 3	Problem Solving and Critical Thinking
February 10	Algebra – Equations
February 17	Algebra – Linear Systems
February 24	Algebra – Linear Systems
March 2	Geometry
March 9	Geometry
March 16	Probability
March 23	Probability
March 30	Midterm Exam
April 6	Set Theory
April 13	Logic
April 20	Logic
April 27	Number Theory
May 4	Number Theory
May 11	Personal Finance
May 18	Final Exam