

Recommended Course Outline

Math 99 – Truman College – Spring 2022

Note: Topics are links.

Week 1	Course Overview, The Set of all Natural Numbers, Order of Operations on Natural Numbers, The words And and Or, Perimeter and Area of Rectangles, Factors of a Number, Introduction to Set Theory
Week 2	Introduction to Intermediate Algebra, The Set of all Integers, Order of Operations on Integers, Perimeter and Area of Right Triangles, The Handshake Problem, Division with Remainder, Prime Numbers
Week 3	Square Roots, Set Operations, Algebraic Expressions and Statements, Introduction to Number Theory, One- and Two-Step Equations, Summation
Week 4	Fractions 1 (the definition), Fractions 2 (equivalent fractions), LCM and GCD, Simplifying Algebraic Expressions
Week 5	Rules of Exponents, Linear Equations - 2 (unknown on both sides), Review, Exam
Week 6	Fractions 3 (mixed numbers and improper fractions), Fractions 4 (adding and subtracting), Multiplying Algebraic Expressions, Set Operations, The nth Root of a Number
Week 7	The Zero-Product Rule, Factoring A (GCF and Diff. of Squares Theorem), Fractions 5 (multiplying and dividing), Integer Exponents, Basic Percent Problems, The Rectangular Coordinate System
Week 8	Linear Word Problems (Review), Completing The Square - Part 1 and Part 2, Quadratic Word Problems, Scientific Notation with Integer Exponents, Fractions and Decimals, Area of a Triangle
Week 9	Radical Expressions 1, Smallest Value of a Quadratic Expression, Intervals, Completing the Square - Part 3, and Part 4, Weighted Average
Week 10	Square-Root of 2 is Irrational, The Real Number System, Rational Expressions 1, Review, Exam
Week 11	Graphing a Line, Linear Inequalities, Graphing a Parabola - 1, Linear Equations 3, The Triangle Inequality, Absolute Value Equations
Week 12	The Pythagorean Theorem, Radical Expressions 2, Rational Exponents, Systems of Equations: Elimination, Introduction to Combinatorics
Week 13	Compound Inequalities, Slope of a Line, Graphing a Parabola - 2, Systems of Equations: Substitution, More on Linear Systems
Week 14	Writing Equations of Lines, The Quadratic Formula, Similar Triangles, Radical Equations
Week 15	Complex Numbers, Functions, Rational Expressions 2, Rational Equations, Work Word Problems (Optional), Systems in Three Variables
Week 16	Review, Exam