

Math 7 Outline for Intermediate Algebra (2 units)

Essential Topics from Elementary Algebra

[TEXT: Intermediate Algebra for College Students, 7th edition, by Blitzer]

Approved: October 2017

Effective: Summer 2018

MATERIAL TO BE COVERED	SECTIONS FROM TEXT	TIME LINE
Real numbers – operations and properties. Exponent rules for integer exponents. Simplifying algebraic expressions. Solving linear equations in one variable with applications. Solving literal equations.	MCP 1.1 – 1.4 CRE Ch. 1	2 hours
Functions and relations. Linear equations in two variables – graphing, slope. Writing linear equations in two variables with applications. [NOTE: Just-in-time support, focus on elementary algebra skills needed to work with functions at the intermediate algebra level]	MCP 2.1 – 2.3 CRE Ch. 2	3 hours
Solving linear systems in two variables by graphing, substitution, and elimination methods. Applications. [NOTE: Just-in-time support, focus on elementary algebra skills needed to work with linear systems in three variables]	MCP 3.1 – 3.3 CRE Ch. 3	2 hours
Solving linear inequalities in one variable with applications. Solving linear inequalities in two variables. [NOTE: Just-in-time support, focus on elementary algebra skills needed to work with absolute value equations, compound and absolute value inequalities]	MCP 4.1 – 4.3 CRE Ch. 4	3 hours
Adding, subtracting, or multiplying polynomials. Factoring – GCF, grouping, trinomials, differences of squares, sums and differences of cubes. Solving quadratic equations by factoring. Applications of quadratic equations.	MCP 5.1 – 5.3 CRE Ch. 5	3.5 hours
Rational expressions – fundamental property, operations, complex fractions. Solving equations with rational expressions. Applications of rational expressions. Dividing polynomials.	MCP 6.1 – 6.4 CRE Ch. 6	3 hours
Roots and radicals – evaluating, operations and simplifying. Rationalizing denominators. Rational exponents. Solving equations with radicals. [NOTE: Just-in-time support, focus on elementary algebra skills needed to work with complex numbers]	MCP 7.1 – 7.4 CRE Ch. 7	3.5 hours
Solving quadratic equations by the square root property, completing the square, and quadratic formula. [NOTE: Just-in-time support, focus on elementary algebra skills needed to work with discriminant, finding quadratic equation from solutions, solving equations in quadratic form, graphing quadratic functions, application of the vertex, solving polynomial and rational inequalities]	MCP 8.1 – 8.3 CRE Ch. 8	4 hours
[NOTE: Just-in-time support, focus on elementary algebra skills needed to work with inverse, exponential and logarithmic functions. Properties of logarithms. Solving exponential and logarithmic equations with applications]	MCP 9.1 – 9.4 CRE Ch. 9	4 hours
[NOTE: Just-in-time support, focus on elementary algebra skills needed to use distance and mid-point formulas. Graphing circle, ellipse, hyperbola, parabola. Identifying conics. Systems of nonlinear equations]	MCP 10.1 – 10.3 CRE Ch. 10	3.5 hours
[NOTE: Just-in-time support, focus on elementary algebra skills needed to work with sequences, summation notation, Binomial Theorem]	CRE Ch. 11 Problems for 11.1 and 11.4 only	2 hours
FINAL EXAM		2.5 hours

- Sections from the text are problem based, focusing on Mid-Chapter Check Point [MCP] and Chapter Review Exercises [CRE].
- This outline does not include time for exams (other than the final exam time). This does not imply that you should only give a final exam.
- This is a Pass/No Pass course and is not subject to department grading policy.

Submitted by corequisite committee: Beydler, Khoddam, Lai, Morales, Nguyen, Rivers, Summers, Terreri, Wohlgezogen