Catalog Description:
Functions: polynomial, rational, radical, exponential, and logarithmic. Introduction to right-angle trigonometry. Applications.

Prerequisite:
Math Placement Level N; C- or better in 1075; or credit for 104 or 148; or ACT math score ≥ 22 or SAT math score ≥ 520 (scores must be less than 2 years old).

Exclusions:
Not open to students with credit for 1144 or 1150 or higher, or for a quarter-system math course numbered 150 or higher.

Purpose:
College Algebra provides students a college level academic experience that emphasizes the use of algebra and functions in problem solving and modeling, where solutions to problems in real-world situations are formulated, validated, and analyzed using mental, paper-and-pencil, algebraic and technology-based techniques as appropriate using a variety of mathematical notation. Students should develop a framework of problem-solving techniques (e.g., read the problem at least twice; define variables; sketch and label a diagram; list what is given; restate the question asked; identify variables and parameters; use analytical, numerical and graphical solution methods as appropriate; determine the plausibility of and interpret solutions). – Adapted from the MAA/CUPM CRAFTY 2007 College Algebra Guidelines. This course is intended to satisfy the requirements of the Ohio Board of Regents TMM001 College Algebra course with learning outcomes specified in: http://regents.ohio.gov/transfer/otm/otm-learning-outcomes.php
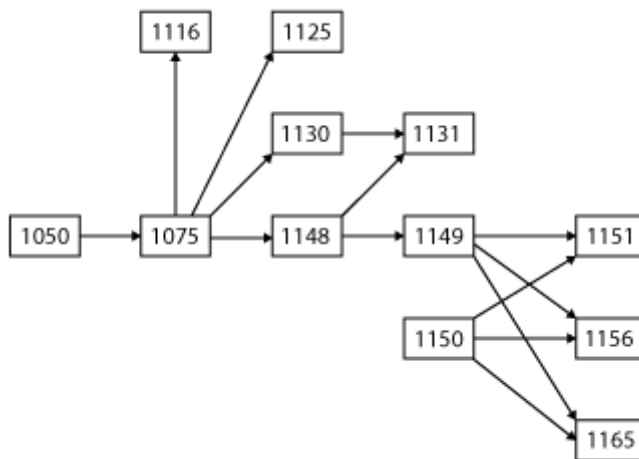
Text:
College Algebra & Trigonometry, 1st Edition, by Miller and Gerken, published by McGraw-Hill.
ISBN: 9781259976612

Technology:
All students are required to have a graphing calculator, TI-83 or TI-84.
Note: Any calculators (including TI-89 and TI-92) that use a Computer Algebra System (CAS) are not permitted.

Sequencing Chart:

Topics List:

Week 1	Section 1.7 – Inequalities
	Section 2.3 – Functions and Relations
Week 2	Section 2.4 – Linear Equations in Two Variables
	Section 2.5 – Applications of Linear Equations
Week 3	Section 9.1 – Systems of Linear Equations in Two Variables
	Section 9.2 – Systems of Linear Equations in Three Variables
Week 4	Section 2.6 – Transformations of Graphs
	Section 2.7 – Analyzing Graphs of Functions
Week 5	Test 1
	Section 2.8 – Algebra of Functions and Composition
Week 6	Section 3.1 – Quadratic Functions and Applications
	Section 3.2 – Polynomial Functions
Week 7	Section 3.3 – Division of Polynomials
	Section 3.5 – Rational Functions
Week 8	Section 3.5 – Rational Functions
	Section 3.6 – Polynomial and Rational Inequalities
Week 9	Test 2
Week 10	Section 4.1 – Inverse Functions
	Section 4.2 – Exponential Functions
Week 11	Section 4.2 – Exponential Functions
	Section 4.3 – Logarithmic Functions
Week 12	Section 4.3 – Logarithmic Functions
	Section 4.4 – Properties of Logarithms
Week 13	Section 4.4 – Properties of Logarithms
Week 14	Section 4.5 – Exponential and Logarithmic Equations
	Section 4.6 – Modeling with Exponential and Logarithmic Functions
	Comprehensive review, Final Exam