

MTH 1110 - COLLEGE ALGEBRA FOR CALCULUS ONLINE

SYLLABUS

FALL 2024

Date	Sections covered
Week 1	Introduction 1.1 - Real Numbers and the Rectangular Coordinate System 1.2 - Introduction to Relations and Functions 1.3 - Linear Functions
Week 2	1.4 - Equations of Lines and Linear Models 1.5 - Linear Equations and Inequalities 1.6 - Applications of Linear Functions
Week 3	2.1 - Graphs of Basic Functions and Relations; Symmetry 2.2 - Vertical and Horizontal Shifts of Graphs 2.3 - Stretching, Shrinking, and Reflecting Graphs
Week 4	2.4 - Absolute Value Functions 2.5 - Piecewise-Defined Functions
Week 5	Exam I covers Sections 1.1–1.6, 2.1–2.5 Exam I will be offered September 16–18, 2024 Read Weeks 1–4 Online Lecture Notes in the Learning Modules
Week 5	2.6 - Operations and Composition 3.2 - Quadratic Functions and Graphs 8.1 - Circles Revisited and Parabolas
Week 6	3.3 - Quadratic Equations and Inequalities 3.4 - Applications of Quadratic Functions and Models 4.1 - Graphs of Polynomial Functions
Week 7	4.2 - Topics in the Theory of Polynomial Functions I 4.3 - Topics in the Theory of Polynomial Functions II 4.4 - Polynomial Equations, Inequalities, Applications and Models
Week 8	5.1 - Rational Functions and Graphs I 5.2 - Rational Functions and Graphs II
Week 9	Exam II - Sections 2.6 3.2–3.4, 4.1–4.4, 5.1–5.2, 8.1 Exam II will be offered October 14–16, 2024 Read Weeks 5–8 Online Lecture Notes in the Learning Modules
Week 9	5.3 - Rational Equations, Inequalities, Models, and Applications 5.4 - Functions Defined by Powers and Roots

Week 10	5.5 - Equations, Inequalities, and Applications Involving Root Functions 6.1 - Inverse Functions
Week 11	6.2 - Exponential Functions 6.3 - Logarithms and Their Properties
Week 12	6.4 - Logarithmic Functions 6.5 - Exponential and Logarithmic Equations and Inequalities
Week 13	6.5 - Exponential and Logarithmic Equations and Inequalities 6.6 - Further Applications and Modeling with Exponential and Logarithmic Functions
Week 14	Exam III - Sections 5.3–5.5, 6.1–6.6 Exam III will be offered November 18 – 20, 2024 Read Weeks 9–13 Online Lecture Notes in the Learning Modules
Week 14	7.1 - Systems of Equations 12.5 - The Binomial Theorem
	Thanksgiving Break, November 25-29 (No Class)
Week 15	Review
Week 16	Comprehensive Final Exam (December 9–11, 2024)