

MATH 1090 (Algebra and Trigonometry) — Fall 2009

Course Outline

UNIT 1: FUNDAMENTAL CONCEPTS (approx. 1 week)

- 1.1: Numbers, Sets and Intervals (§P.1, P.9)
- 1.2: Functions and Equations (§P.7, 1.2, 1.3)

UNIT 2: LINES AND PARABOLAS (approx. 3 weeks)

- 2.1: Linear Functions and Equations (§P.7, 1.4, 1.5, 1.9)
- 2.2: Absolute Value Functions and Equations (§P.7, P.9, 1.2)
- 2.3: Quadratic Functions and Equations (§P.2, P.3, P.5, P.7, 2.2)
- 2.4: Square Root Functions and Equations (§P.3, P.7, 1.2)
- 2.5: Graphing Transformations (§1.6)

UNIT 3: TRIGONOMETRY (approx. 4 weeks)

- 3.1: Right Triangle Trigonometry, Degree Measure (§4.1, 4.3)
- 3.2: Trigonometric Functions, Radian Measure (§4.1, 4.2, 4.4)
- 3.3: Graphs of Trigonometric Functions (§4.5, 4.6)
- 3.4: Verifying Trigonometric Identities (§5.1)
- 3.5: Trigonometric Equations (§5.5)
- 3.6: Trigonometric Formulas (§5.2, 5.3)

UNIT 4: EXPONENTIAL, LOGARITHMIC AND INVERSE FUNCTIONS (approx. 2 weeks)

- 4.1: Radical Functions (§P.3, P.7, 1.2)
- 4.2: Exponential Functions and Equations (§3.1, 3.4)
- 4.3: Composite Functions (§1.7)
- 4.4: Inverse Functions (§1.8)
- 4.5: Logarithmic Functions and Equations (§3.2, 3.3, 3.4)

UNIT 5: OTHER FUNCTIONS AND EQUATIONS (approx. 2 weeks)

- 5.1: Polynomial Functions and Equations (§P.4, P.5, 2.1, 2.3, 2.4, 2.5)
- 5.2: Rational Functions and Equations (§P.6, P.7)
- 5.3: Polynomial and Rational Inequalities (§2.7)
- 5.4: Graphs that are Not Functions (§1.4, 1.5, 1.9)

Section numbers (§) refer to Blitzer, 3rd or 4th editions.