

SYLLABUS

MATH 10774 – Algebra for Calculus Stretch II

(3 Credit Hours)

Catalog Information: Continuation of MATH 10773. Study of rational expressions and functions, exponential and logarithmic functions, and conic sections. No credit earned for this course if a student already earned credit for MATH 11011 or MATH 12001. Students cannot earn credit toward a degree for both this course and either MATH 11010 or MATH 10775. Prerequisite: MATH 10773 with a minimum grade of C (2.0).

Text: A custom edition of Beecher, Penna, Bittinger (2012). College Algebra, 4th edition. Pearson

Second Semester 45 days

Functions in General – 6 days

- Composition of functions
- Graphing techniques – quadratic, root, power, rational
 - Symmetry
 - Even/odd functions
 - Horizontal and vertical translations
 - Vertical and horizontal stretches and compressions – non rigid transformations

Rational Expressions and Functions – 11 days

- Finding domains
- Simplifying
- Multiplying and Dividing
- Adding and Subtracting
- Rational Equations & applications
- Graphing rational functions
- Rational inequalities

Exponential and Logarithmic Functions – 15 days

- One to one functions
- Inverse functions
- Exponential functions – graphing and applications
- Logarithmic functions – graphing and applications
- Properties of logarithms
- Logarithmic equations

(MATH 10774 Syllabus, continued)

- Exponential equations
- Exponential applications

Conic Sections – 6 days

- Distance formula
- Circles
- Ellipse
- Parabola
- Hyperbola

4 EXAMS 3 REVIEW DAYS