

Math 1050— College Algebra/Pre-Calculus

MTWF, 1:00–1:50 pm, NIB 135, CRN: 40107

Instructor: Brian Stine

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Office: NIB Adjunct Office

Office Hours: MWF 2:00–2:50 pm

Required Text: *College Algebra* (10th edition) by Lial, Hornsby and Schneider

Prerequisites: C or better in Math 1010 or 1030 or ACT of 23 or higher

Course Description

Course fulfills General Education Mathematics requirement for students majoring in Business, Elementary Education, Health Sciences, Science, and other majors. Reviews fundamental algebra; explores polynomial and rational functions; introduces exponential and logarithmic functions and applications; trigonometric functions dealing with graphs, identities, and equations, including inverse functions.

Course Objectives

All classes in mathematics at Dixie College support the general education goal of the college, and will:

- Require students to perform mathematical processes including fractions, percentages, decimals, proportions/ratios, algebraic equations and/or calculus techniques.
- Provide students with application problems that use a variety of methods including arithmetical, algebraic and geometric methods.
- Challenge students to make inferences from mathematical models that include formulas, graphs and tables.
- Provide students with real-life applications that use a variety of mathematical functions.

Upon successful completion of this course, the students will demonstrate through testing the ability to:

- Apply functional notation.
- Determine symmetries that exist in the graph of an equation.
- Graph polynomial functions and find their intercepts, maxima, and minima.
- Analyze the key components of the graph of polynomial and rational functions.
- Compute the composition and inverses of functions.
- Graph exponential and logarithmic functions.
- Apply properties of logarithms and exponents in simplifying expressions and solving equations.
- Solve systems of linear equations using substitution, elimination, matrices, and Cramer's rule.
- Solve non-linear systems of equations and inequalities.
- Find terms and sums of terms of arithmetic and geometric sequences and series.
- Compute the terms of a binomial expansion.

Disability Resource Center

If you are a student with a medical, psychological or a learning difference and requesting reasonable academic accommodations due to this disability, you must provide an official request of accommodation to your professor(s) from the Disability Resource Center within the first two weeks of the beginning of classes. Students are to contact the center on the main campus to follow through with, and receive assistance in the documentation process to determine the appropriate accommodations related to their disability. You may call (435) 652-7516 for an appointment and further information regarding the Americans with Disabilities Act (ADA) of 1990 per Section 504 of the Rehabilitation Act of 1973. Our office is located right next to the Testing Center on the bottom floor of the Financial Aid and Career Center building.

Behavior Policies

Your attendance and behavior are expected to reflect your dedication to excellence as a university student. You are expected to attend class, participate in discussions and group work, and to use class time for Math 1040 activities only. You must abide by all regulations set forth in the "Student Rights and Responsibilities Code" (DSC Policy 5.33). In particular, you should be aware of your obligations pertaining to academic performance ("Academic Performance Responsibilities," DSC Policy 5.33.5).

Homework and Exams

Homework is due daily, but will be accepted up to the day of the test for that section. You are allowed to bring one "cheat sheet" (4 x 6 inch notecard, front and back) to each test. You will need to bring a bluebook for each test.

Grading

Homework	150 points
Tests (100 pts. each)	300 points
Final Exam	<u>300 points</u>
Total	750 points

Your grade will be determined according to the percentage of points you earn in this course. Your semester grade will be based on the following scale: **A**(95-100%), **A-**(90-94%), **B+**(85-89%), **B**(80-84%), **B-**(75-79%), **C+**(71-74%), **C**(67-70%), **C-**(63-66%), **D+**(59-62%), **D**(55-58%), **D-**(51-54%), **F**(0-50%).

Important Dates

Mon, Aug 23 Classwork starts
 Wed, Aug 25 Last day to add without a signature
 Mon, Aug 30 Drop fee begins (\$10 per class)
 Mon, Sep 6 Labor Day
 Tue, Sep 7 \$50 Late registration/payment fee
 Mon, Sep 13 Last day for refund
 Mon, Sep 13 Last day to drop without a "W" grade
 Fri, Sep 17 Last day to add classes
 Fri, Oct 1 Last day to apply for graduation
 Thurs-Fri, Oct 14-15 Semester break
 Mon, Oct 18 Last day to drop or audit classes
 Fri, Nov 12 Last day for complete withdrawal
 Tue, Nov 16 Career Day
 Wed-Fri, Nov 24-26 Thanksgiving break
 Fri, Dec 10 Last day of classes
 Mon, Dec 13, 12:00 – 2:00 pm final exam

Schedule

	Mon	Tue	Wed	Fri
8/23-27	Intro	1.1	1.2	1.3
8/30 - 9/3	1.4	1.5	1.6	1.7
9/6-10	Holiday	1.8	2.1	2.2
9/13-17	2.3	2.4	2.5	2.6
9/20-24	2.7	2.8	Review	Test
9/27 - 10/1	R.3 & R.4	3.1	3.2	3.3
10/4-8	3.4	3.5	3.6	4.1
10/11-15	4.2	4.3	4.4	Break
10/18-22	4.5	4.6	Review	Test
10/25-29	Review	5.1	5.2	5.3
11/1-5	5.4	5.5	5.6	5.7
11/8-12	5.8	6.1	6.2	6.3
11/15-19	Review	Career Day	Test	7.1
11/22-26	7.2	7.3	Holiday	Holiday
11/29 - 12/3	7.4	7.5	7.6	7.7
12/6-12/10	Review	Review	Review	Review
12/13-12/17	Final			