

MAT181 College Algebra

(3 credit hours)

Course Syllabus

Course Description

The course topics include functions and graphs, polynomial and rational functions, exponential and logarithmic functions, matrices, and sequences.

Course Learning Outcomes

By the end of this course, you will be able to:

1. Solve and graph equations including linear, quadratic, rational and radical.
2. Evaluate functions and their graphs, identify domain and range.
3. Evaluate exponential and logarithmic functions with emphasis on exponential growth and decay.
4. Find solutions to matrix systems, simplify matrices and perform matrix operations.
5. Determine terms of sequences and write answers in summation notation.

Prerequisites/Corequisites

MAT173 or placement.

Required Textbook(s) and Resources

Blitzer, R. (2018). *College Algebra with MyLab Math Access* (7th Edition). Upper Saddle River, N.J: Pearson Education.

Be sure to also review the weekly **Explore** sections for additional library or web resources. For access to databases, research help, and writing tips, visit the [Tiffin University Library](#).

Time Commitment

Effective time management is possibly the single most critical element to your academic success. To do well in this class you should plan your time wisely. With our accelerated, seven-week term, you should reserve roughly **twenty (20) hours per week** to complete

readings and assignments. To help plan your time and keep on track toward successful course completion, note the distinctive rhythm of assignment due dates.

To help plan your time and keep on track toward successful course completion, note the distinctive rhythm of assignment due dates:

1. All times assume Eastern Time (GMT-4).
2. Weeks begin at 12:00 a.m. ET on Monday and end at 11:55 p.m. ET on Sunday.
3. Unless otherwise noted, initial forum discussion posts are due by **11:55 p.m. ET** on **Wednesdays** and response posts are due by **11:55 p.m. ET** on **Saturdays**.
4. Major assignments and reflections are due by **11:55 p.m. ET** on **Sundays**.

Learning Activities

The assignments in this course will consist of assignments completed in the MyLab Math software, including weekly quizzes or tests. A Problem of the Week will be assigned each week for you to go into an explanation of how you solve problems. Your explanations give you an opportunity to showcase the depth of your knowledge and how you are filling your mathematical “toolbox.” Two reflection assignments are also included to help reinforce concepts and give you an opportunity to think about applications for the concepts outside of math class.

For all work other than the MyLab Math software, rubrics are provided. The rubrics can be used as a guide for expectations for the assignments. Each assignment is aligned with the weekly goals and course learning outcomes. The depth of the understanding revealed in your assignments will be assessed using the rubrics provided.

Grading

The chart below identifies the individual contributions from each type of activity, per week. Not that assignments in MyLab Math will be graded individually in MyLab Math and show in Moodle individually.

Activity	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Reflection	-	-	50	-	-	50	-	100
MyLab Math Assignments	40 (4x10)	40 (5x8)	40 (5x8)	40 (5x8)	40 (5x8)	40 (2x12, 1x16)	40 (2x12, 1x16)	280
Problem of the Week	30	30	40	30	30	30	30	220
Quiz/Exam	40	40	40	100	40	40	100	400
Total	110	110	170	170	110	160	170	1000

Grading Scale

A: 90-100% | B: 80-89% | C: 70-79% | D: 60-69% | F: <60%

Course Schedule and Weekly Checklist (Due by 11:55 p.m. ET on day designated)

Start Here

- MON: Activity 1.1 (Forum): Meet Your Classmates! – Initial Post

Week 1

- WED: Activity 1.1 (Forum): Meet Your Classmates! – Secondary Posts
- WED: Activity 1.2: Assignment in MyLab Math
- SAT: Activity 1.3: Assignment in MyLab Math
- SUN: Activity 1.4: Week 1 Quiz in MyLab Math
- SUN: Activity 1.5: Problem of the Week

Week 2

- WED: Activity 2.1: Assignments in MyLab Math
- SAT: Activity 2.2: Assignments in MyLab Math
- SUN: Activity 2.3: Week 2 Quiz in MyLab Math

- SUN: Activity 2.4: Problem of the Week

Week 3

- WED: Activity 3.1: Assignments in MyLab Math
- SAT: Activity 3.2: Assignments in MyLab Math
- SUN: Activity 3.3: Week 3 Quiz in MyLab Math
- SUN: Activity 3.4: Problem of the Week
- SUN: Activity 3.5: Reflection

Week 4

- WED: Activity 4.1: Assignments in MyLab Math
- SAT: Activity 4.2: Assignments in MyLab Math
- SUN: Activity 4.3: Week 3 Quiz in MyLab Math
- SUN: Activity 4.4: Problem of the Week

Week 5

- WED: Activity 5.1: Assignments in MyLab Math
- SAT: Activity 5.2: Assignments in MyLab Math
- SUN: Activity 5.3: Week 3 Quiz in MyLab Math
- SUN: Activity 5.4: Problem of the Week

Week 6

- WED: Activity 6.1: Assignments in MyLab Math
- SAT: Activity 6.2: Assignments in MyLab Math
- SUN: Activity 6.3: Week 3 Quiz in MyLab Math
- SUN: Activity 6.4: Problem of the Week
- SUN: Activity 6.5: Reflection

Week 7

- WED: Activity 7.1: Assignments in MyLab Math
- SAT: Activity 7.2: Assignments in MyLab Math
- SUN: Activity 7.3: Week 3 Quiz in MyLab Math
- SUN: Activity 7.4: Problem of the Week

Tips for Success

Online learning requires self-discipline and self-direction. As seekers of the truth, we should be willing to challenge one another's academic work in a spirit of respectful comradery. Your course is a place for you to grow as you benefit from the expertise, experience, and diverse

perspectives of your instructor and peers. Constructive feedback will challenge you to stretch your own thinking, thereby expanding your knowledge and understanding.

To get the most out of your learning experience, you should actively engage (participate) in **ALL** course activities. Course elements are arranged chronologically. To complete a week, simply work your way "down the page" through all of the course materials and activities.

For More Information:

Be sure to review the [Support, Policies, and Procedures](#) addendum.