<u>**Course Syllabus: College Algebra**</u>

MATH 3A-59679   **Reedley College**
Instructor: Mr. Steven Zook   **Fall 2018**
Email: <u>steven.zook@reedleycollege.edu</u>   **Office Hours:** M-F 11am – 12 pm
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Meeting Room: SOC 31
Meeting Days: M-Th
Meeting Time: 10:00 – 10:50 am

<u>**Course Description:**</u> This is a college level course in algebra for majors in science, technology, engineering, and mathematics. Students will study polynomial, rational, radical, exponential, absolute value, and logarithmic functions; systems of equations; theory of polynomial equations; analytic geometry.

<u>**Course Prerequisites:**</u> MATH 103 or equivalent

<u>**Course Advisories:**</u> Eligibility for English 1A

<u>**Student Learning Outcomes:**</u>
Upon completion of this course, students will be able to:
1. Analyze properties of various types of functions.
2. Synthesize results from the graphs and/or equations of functions.
3. Solve various types of equations and inequalities.
4. Apply appropriate techniques to model real world applications.
5. Use formulas to find sums of finite and infinite series.

<u>**Objectives:**</u>
In the process of completing this course, students will:
1. Analyze and investigate properties of functions, including linear, polynomial, absolute value, rational, radical, exponential, and logarithmic functions;
2. Synthesize results from the graphs and/or equations of functions, including linear, polynomial, rational, radical, exponential, and logarithmic functions;
3. Apply transformations to the graphs of functions;
4. Recognize the relationship between functions and their inverses graphically and algebraically;
5. Solve and apply rational, linear, polynomial, radical, absolute value, exponential, and logarithmic equations and solve linear, nonlinear, and absolute value inequalities;
6. Solve systems of equations and inequalities;
7. Apply techniques for finding zeros of polynomials and roots of equations;
8. Apply functions and other algebraic techniques to model real world applications;

9. Analyze conics algebraically and graphically; and
10. Use formulas to find sums of finite and infinite series.

**Required Text: Margaret Lial, <u>College Algebra</u>, Pearson, 12th Edition, 2017.
ISBN: 97801343217451**
This text is required for reading; however, you do not have to purchase a hard copy of the text since it is available online as an eText with the MyMathLab subscription.

Required Course Material MyMathLab: You will be required to obtain access to MyMathLab. To access the course, follow the instructions below:

 Enter Your Canvas Course:
1. Sign in to Canvas and enter your Canvas course.
2. Do one of the following:
    - Select any Pearson link from any module.
    - Select the **MyLab & Mastering** link in the Course Navigation, and then select any course link on the Pearson page.

Get Access to Your Pearson Course Content:
1. Enter your Pearson account **username** and **password** to **Link Accounts**. You have an account if you have ever used a Pearson MyLab & Mastering product, such as MyMathLab, MyITLab, MySpanishLab, MasteringBiology or MasteringPhysics.
    - If you don't have a Pearson account, select **Create** and follow the instructions.
2. Select an access option:
    - Enter the access code that came with your textbook or was purchased separately from the bookstore.
    - Buy access using a credit card or PayPal account.
    - If available, get temporary access by selecting the link near the bottom of the page.
3. From the You're Done page, select **Go to My Courses**.

Note: We recommend you always enter your MyLab & Modified Mastering course through Canvas.

WARNING: Any students who do not gain full paid access to MyMathLab by Monday 8/27/18 may be automatically dropped from the course.

<u>Office Hours:</u> I will be holding regular office hours. I want to be available to you if you need assistance outside of class. Please visit me during the scheduled times for drop-in questions. You may come unannounced during those times. If the scheduled office hours do not suit your schedule, you may arrange a time to meet me in my office. Please don't hesitate to take advantage of these since I want you to succeed – it's what I am here for.

Attendance: As a student, you are expected to attend all classes for the entire period. Please be on time and ready to start when class is scheduled to begin. I ask this out of respect for your classmates and me. **Eight (8) absences** may result in a drop from the course. If you decide to drop, it is your responsibility to drop the class officially through the Administration and Records office. In failing to do so, you run the risk of receiving a **grade of F**.

Classroom Behavior: Please take care of any personal responsibilities and needs before entering the classroom. Please **TURN OFF your phones** when entering the class. They should **remain off for the duration** of the class period. If you use your phone in class, you may be asked to leave class. While you are in class, I expect you to participate and pay attention and you may not work on homework in class or prepare for a different class. You are allowed to use a **scientific calculator**, but not a graphing calculator for this class. Also, you may not use your phone as a calculator.

Drop Deadline: Friday, October 12

Assignments & Exams:
All **online homework** assignments will be completed online at **MyMathLab**. Homework assignments will be due on the due date by **11:59pm** and will cover topics outlined in the course calendar. If you submit your homework late, there is a **10% penalty for each day** that the assignment is late. An assignment that is late 10 days or more receives no credit (10 days $\times$ 10%/day = 100% penalty).

There will be weekly **quizzes** that will be completed in **MyMathLab**. These will be available on the date they need to be completed and you will be given a time limit in which to complete the quiz. These may not be made up if they are attempted late. If you know in advance that you need to take the quiz early, please let me know.

There will be two **projects** this semester that will require considerable work and intellectual investment. The projects will be aligned with the content we are working through in class at the time they are assigned. I anticipate that they will be rewarding and teach you a lot. Details on these assignments will be given in class. Each class assignment will be given one week before it is due. They will require the full week to complete and no late assignments will be accepted unless an extension is granted in advance on a case-by-case basis.

There will be **six (6) exams including a comprehensive final** throughout the semester and the dates they will be held are in the course calendar and they will cover the specified content. There will be no make-up exams allowed. **If it is to your benefit, the final exam grade replaces the lowest exam grade.**

Assignment Categories and Weighting

Assignment	Weighting
Online Homework	15%
Quizzes (10 @ 1% each)	10%
Projects (2 @ 5% each)	10%
Chapter Tests (5 @ 10% each)	50%
Final Exam	15%

Final Grades

Letter Grade	Percent
A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

SPECIAL NEEDS REQUESTS: If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible.

Please refer to the RC Catalog for the Policies on Academic Dishonesty, Cheating, and Plagiarism, pg. 49.

Course Outline and Schedule

Week 1:   Chapter 1: Equations and Inequalities

Week 2:   **Homework 1** due by Tuesday Aug. 21
            Quiz 1, Friday Aug. 24

Week 3:   **Homework 2** due by Tuesday Aug. 28
            Quiz 2, Friday Aug. 31

Week 4:   No Class: Monday, Sept. 3
            Homework 3 due by Tuesday, Sept. 4
            Exam 1 (Chapter 1) Tuesday, Sept. 4
            Chapter 2: Graphs and Functions

Week 5:   **Homework 4** due by Tuesday, Sept. 11
            Quiz 3, Friday Sept. 14

Week 6:   **Homework 5** due by Tuesday, Sept. 18
            Quiz 4, Friday Sept. 21

Week 7:   **Exam 2 (Chapter 2) Monday, Sept. 24**
            Homework 6 due by Tuesday, Sept. 25
            Chapter 3: Polynomial and Rational Functions

Week 8:   **Homework 7** due by Tuesday, Oct. 2
            Quiz 5, Friday Oct. 5

Week 9:   **Homework 8** due by Tuesday, Oct. 9
            Exam 3 (Chapter 3) Thursday Oct. 11

Week 10:   Chapter 4: Inverse, Exponential, and Logarithmic Functions
            Homework 9 due by Tuesday, Oct. 16
            Quiz 6, Friday Oct. 19

Week 11:   **Homework 10** due by Tuesday, Oct. 23
            Quiz 7, Friday Oct. 26

Week 12:   **Homework 11** due by Tuesday, Oct. 30
            Exam 4 (Chapter 4), Thursday Nov. 1

Week 13:   Chapter 5: Systems and Matrices
            Homework 12 due by Tuesday, Nov. 6
            Quiz 8, Friday Nov. 9

Week 14:   Chapter 6: Analytic Geometry
            Homework 13 due by Tuesday, Nov. 13
            Quiz 9, Friday Nov. 16

Week 15:   **Homework 14** due by Tuesday, Nov. 20
            No Class: Thursday, Nov. 22

Week 16:   **Homework 15** due by Tuesday, Nov. 27
            Exam 5 (Chapters 5 & 6), Tuesday, Nov. 27
            Chapter 7: Further Topics in Algebra

Week 17:   **Homework 16** due by Tuesday, Dec. 4
            Quiz 10, Friday Dec. 7

Week 18:   **Comprehensive Final Exam, Monday, Dec. 10, 10:00am – 11:50am**

If any changes are made, I will announce them in class and post them on Canvas.