

Math 1314

College Algebra

Instructor: Mario Barrientos

Email: mario.barrientos@angelo.edu

Phone: 325 486 5427

Office: MCS 209

Office Hours: MWF 10-11 AM, also 12 noon to 1PM, T-Tr 9-11AM,
or by appointment.

Course Information

Textbook

College Algebra, Jay Abramson, (OpenStax Free Web Version), ISBN ISBN-10: 1-947172-12-3

Assignments

You will be assigned daily homework assignments which are generally due the next class day. I will not accept late assignments; however, I will drop two of your lowest homework grades.

All homework is done online through MyOpenMath, Course ID is 130360, Enrollment Key is AL 1314.

If you miss a test (an official excused absence) I will replace the missing test grade with the final exam grade. I will only do this for one exam. Any other missing exams will be given a zero grade. All exams are in class exams with no notes. Exam dates are: Feb 9, Mar 9, Apr 13 and the final on May 11. The final exam is mandatory.

Class rules

This class is a face to face class, supplementary material will be posted in BlackBoard.

I keep a record of student attendance but your grade is not directly affected by absences, lateness, etc. Also, no cell phone use or eating is allowed in class.

Grading

Evaluation and Grades

Course grades will be determined as indicated in the table below.

Assessment	Percent of Total Grade
homework	20
EXAMS	80
Total	100

Grading System

Course grades will be dependent upon completing course requirements and meeting the student learning outcomes.

The following grading scale is in use for this course:

A = 90.00-100 points

B = 80.00-89.99 points

C = 70.00-79.99 points

D = 60.00-69.99 points

F = 0-59.99 points

(Grades are not rounded up)

General Policies Related to This Course

All students are required to follow the policies and procedures presented in these documents:

- [Angelo State University Student Handbook](#)¹
- [Angelo State University Catalog](#)²

Academic Integrity

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the university's [Statement of Academic Integrity](#).³

Accommodations for Students with Disabilities

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student's responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the [Student Disability Services website](#).⁴ The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford
Director of Student Disability Services
Office of Student Affairs
325-942-2047
dallas.swafford@angelo.edu
Houston Harte University Center, Room 112

Incomplete Grade Policy

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 [Grading Procedures](#)⁵ for more information.

Student Absence for Observance of Religious Holy Days

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for [Observance of Religious Holy Day](#)⁶ for more information.

Title IX at Angelo State University

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against

Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Miller, J.D. You may submit reports in the following manner:

Online: [Incident Reporting Form](#)⁷

Face to Face: Mayer Administration Building, Room 210

Phone: 325-942-2022

Email: michelle.miller@angelo.edu

Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State's policy please visit the [Title IX website](#).⁸

Information About COVID-19

Please refer to ASU's [COVID-19 \(Coronavirus\) Updates](#)⁹ web page for current information about campus guidelines and safety standards as they relate to the COVID-19 pandemic.

Course Schedule

All items contained in this syllabus are subject to change as the semester progresses. Students will be notified in advance of any changes. In particular, the COVID-19 pandemic may require significant changes in course delivery and content on potentially short notice.

1 Syllabus, course orientation
2 1.1 Real Numbers
3 1.2 Exponents & Scientific Notation
4 1.2 Exponents & Scientific Notation & 1.3 Radicals & Rational Exponents
5 1.3 Radicals & Rational Exponents
6 1.4 Polynomials
7 1.5 Factoring Polynomials
8
9 1.5 Factoring Polynomials
10 1.6 Rational Expressions
11 1.6 Rational Expressions
12 2.1 The Rectangular Coordinate System and Graphs
13 2.1 The Rectangular Coordinate System and Graphs;
14 2.2 Linear Equations in One Variable
15 2.2 Linear Equations in One Variable
16 2.3 Models & Applications
17 2.4 Complex Numbers
18 2.5 Quadratic Equations
19 2.5 Quadratic Equations & 2.6 Other Types of Equations
20 2.6 Other Types of Equations
21 2.6 Other Types of Equations
22 2.7 Linear Inequalities and Absolute Value Inequalities
23 2.7 Linear Inequalities and Absolute Value Inequalities
24 3.1 Functions and Function Notation
25 3.2 Domain and Range
26 3.2 Domain and Range
27 4.1 Linear Functions
28 5.1 Quadratic Functions
29 5.1 Quadratic Functions
30 6.1 & 6.2 Exponential Functions
31 6.3 & 6.4- Logarithmic Functions
32 6.5 Logarithmic Properties
33 6.5 Logarithmic Properties & Assessment 9
34 6.6 Exponential and Logarithmic Equations
35 6.6 Exponential and Logarithmic Equations
36 7.1- Systems of Linear Equations: 2 Variables
37 7.1- Systems of Linear Equations: 2 Variables
38 7.2- Systems of Linear Equations: 3 Variables
39 Final Exam

Mathematics 1314 – College Algebra

1. **Students will demonstrate factual knowledge including the mathematical notation and terminology used in this course.** Students will read, interpret, and use the vocabulary, symbolism, and basic definitions used in college algebra including the real numbers, exponents, radicals, polynomials, factoring, functions, equations, inequalities, and graphs.
2. **Students will describe the fundamental principles including the laws and theorems arising from the concepts covered in this course.** Students will identify and apply the laws and formulas that result directly from the definitions; for example, the quadratic formula, rules of exponents, and properties of logarithms.
3. **Students will apply course material along with techniques and procedures covered in this course to solve problems.** Students will use the facts, formulas, and techniques learned in this course to simplify algebraic expressions, graph functions, and solve inequalities, equations and systems of equations.
4. **Students will develop specific skills, competencies, and thought processes sufficient to support further study or work in this field or related fields.** Students will acquire a level of proficiency in the fundamental concepts and applications necessary for further study in academic areas requiring college algebra as a prerequisite, or for work in occupational fields requiring a background in algebra. These fields might include education, business, finance, marketing, computer science, physical sciences, and engineering, as well as mathematics.

Textbook

College Algebra, Jay Abramson, (OpenStax Free Web Version), ISBN ISBN-10: 1-947172-12-3

Course Content

The following chapters including the particular sections listed are covered.

1. **A Review of Basic Algebra:** Real Numbers; Integer Exponents and Scientific Notation; Rational Exponents and Radicals; Polynomials; Factoring Polynomials; Rational Expressions.

2. **Functions and Graphs:** Functions and Function Notation; The Rectangular Coordinate System and Graphing Lines; Linear Functions and Slope; Writing and Graphing Equations of Lines.
3. **Functions:** Graphs of Functions.
4. **Polynomial and Rational Functions:** Quadratic Functions.
5. **Exponential and Logarithmic Functions:** Exponential Functions and Their graphs; Logarithmic Functions and Their graphs; Properties of Logarithms; Exponential and Logarithmic Equations.
6. **Linear Systems:** Systems of Linear Equations.

¹ <https://www.angelo.edu/student-handbook/>

² <https://www.angelo.edu/catalogs/>

³ <https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>

⁴ <https://www.angelo.edu/services/disability-services/>

⁵ <https://www.angelo.edu/content/files/14197-op-1011-grading-procedures>

⁶ <https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>

⁷ <https://www.angelo.edu/incident-form>

⁸ <https://www.angelo.edu/title-ix>

⁹ <https://www.angelo.edu/covid-19/>