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**


**Course Content**

The following chapters including the particular sections listed are covered.

1. **Chapter P: Prerequisites: Fundamental Concepts of Algebra 1:** Real Numbers; Integer Exponents and Scientific Notation; Rational Exponents and Radicals; Polynomials; Factoring Polynomials; Rational Expressions.
   - **Aug. 26 - Sept. 13 (Test on Sept. 12-13)**

2. **Chapter 1: Equations and Inequalities:** Graphs, Linear and Rational Equations, Complex numbers, Quadratic Equations.
   - **Sept. 16 – Oct. 1 (Test on Oct. 1)**

3. **Chapter 2: Functions and Graphs:** Basic functions and their graphs, linear functions and slope, Transformations of functions.
   - **Oct. 2 – Oct. 18 (Test on Oct. 17-18)**
4. **Chapter 3: Polynomial and Rational Functions:** Quadratic functions, polynomial functions and their graphs, dividing polynomials, zeros of polynomial functions, Rational functions and their graphs, Polynomial and rational inequalities.
   - **Oct. 21 – Nov. 7 (Test on Nov. 7)**

5. **Chapter 4: Exponential and Logarithmic Functions:** Exponential functions, Logarithmic functions, Properties of logarithms exponential and logarithmic equations, exponential growth and decay.
   - **Nov. 11 – Nov. 22 (Test on Nov 21-22)**

6. **Chapter 5 Systems of Equations and Inequalities:** Systems of linear equations in 2 variables and 3 variables, Partial Fractions, Systems of nonlinear equations in 2 variables, systems of inequalities.
   - **Dec. 2 – Dec. 9 (Test on Dec. 9)**

7. **Final Exam Review and Final Exam**
   - **Dec. 10 – Dec. 13 (Final Exam Dec. 12 – 13)**

- **Grades:**
  - Assignments 30%
  - Tests 50%
  - Final 20%

- **Percentage (%) Grade**
  
  A 90- 100  
  B 80-89  
  C 70-79  
  F Below 70

- **Contacting me:**
  - Phone: 432-558-1030 - Please respect the class time of your student and others by calling only during conference or leaving a message and I will return your call as soon as possible.
  - Conference period: 5th period 11:22 – 12:12
  - Email: canderson@craneisd.com *(The easiest way to contact me is through email.)*
  - You may also get text reminders from me by subscribing to my class on Remind.
Student Disability Services
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.

The Office of Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student’s responsibility to initiate such a request by contacting:

Ms. Dallas A. Swafford
Director of Student Disability Services
☎ 325-942-2047
✉ dallas.swafford@angelo.edu
📍 Houston Harte University Center

Title IX Statement
Angelo State University is committed to the safety and security of all students. If you or someone you know experience sexual harassment, sexual assault, domestic or dating violence, stalking, or discrimination, you may contact ASU’s Title IX Coordinator:

Michelle Nicole Boone, J.D.
Director of Title IX Compliance
☎ Michelle.boone@angelo.edu
☎ 325-486-6357
📍 Mayer Administration Building 204

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 for more information.

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 for more information.

Student Conduct Policies
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 to disciplinary action and possible expulsion from ASU.

Academic Integrity
Plagiarism
Plagiarism is a serious topic covered in ASU’s Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own. Plagiarism is literary theft.
In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.
Papers are subject to be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center.

Copyright Policy
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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
- Angelo State University Catalog