Mathematics 1314 – College Algebra

Spring 2018 Syllabus

Disclaimer: This syllabus is current and accurate as of its posting date, but will not be updated. For the most complete and up-to-date information contact the instructor.

Instructor Information

Melissa Wauson
Room: 7
Phone: 325-372-3786
Email: mwauson@san-saba.net
Conference:
   Monday: 11:51 to 12:37
   Tuesday – Friday: 11:21 to 12:07

Student Learning Outcomes

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.

Course Content


*The following chapters including the particular sections listed are covered.

**Chapter 3. Functions:** Graphs of Functions; Transformations of Functions; Operations on Functions.

**Chapter 4. Polynomial and Rational Functions:** Quadratic Functions; Polynomial Functions; Zeros of a Polynomial; Rational Functions.

**Chapter 5. Exponential and Logarithmic Functions:** Exponential Functions and Their graphs; Logarithmic Functions and Their graphs; Properties of Logarithms; Exponential and Logarithmic Equations.

Revised January 2018
Chapter 6. **Linear Systems**: Systems of Linear Equations; Matrices; Determinants; Partial Fractions.

Chapter 8. **Sequences, Series, and Probability**: The Binomial Theorem; Sequences, Series, and Summation Notation; Arithmetic Sequences and Series; Geometric Sequences and Series; Permutations and Combinations; Probability.

**Tentative Schedule**

- Chapter 3 Assignments due 1-24-18
- Chapter 3 Test on 1-26-18
- Chapter 4 Assignments due 2-13-18
- Chapter 4 Test on 2-15-18
- Chapter 5 Assignments due 3-7-18
- Chapter 5 Test on 3-9-18
- Chapter 6 Assignments due 4-4-18
- Chapter 6 Test on 4-6-18
- Chapter 8 Assignments due 4-25-18
- Chapter 8 Test on 4-27-18
- Final Exam on 5-9-18

**Grading Scale**

The following grading scale will be used to determine your final grade in the course:

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

**Grade Calculations**

This course will consist of daily exercises from the textbook, an exam after each of the five chapters, and a final exam. Your average will be broken down as follows:

- Homework: 5%
- Chapter 3 Test: 15%
- Chapter 4 Test: 15%
- Chapter 5 Test: 15%
- Chapter 6 Test: 15%
- Chapter 8 Test: 15%
- Final Exam: 20%

**Honor Code**

Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code, which is available on the web at [http://www.angelo.edu/forms/pdf/honorcode5.pdf](http://www.angelo.edu/forms/pdf/honorcode5.pdf)