

Angelina College
Division of Science and Mathematics
MATH 1314 – College Algebra
Syllabus – Fall 2017 (INTERNET)

I. BASIC COURSE INFORMATION:

- A. College Algebra – MATH 1314 – In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. Students are required to have a graphing calculator. Three lecture hours each week.
- B. The intended audience is any student needing the fundamentals of college algebra but not preparing for the study of higher mathematics nor majoring in science.
- C. Instructor: Julie Mays
Office Location: B102-K
Office Hours: by appointment
Phone: 936-633-5460
E-mail Address: jmays@angelina.edu

II. INTENDED STUDENT OUTCOMES:

A. Core Objectives Required for this Course

- 1. Critical Thinking:** to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- 2. Communication:** to include effective development, interpretation and expression of ideas through written, oral and visual communication
- 3. Empirical and Quantitative Skills:** to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

B. Course Learning Outcomes for all Sections

1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses.
2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equations.
3. Apply graphing techniques.
4. Evaluate all roots of higher degree polynomial and rational functions.
5. Recognize, solve and apply systems of linear equations using matrices.

III. ASSESSMENT MEASURES

A. Assessments for the Core Objectives

- 1. Critical thinking:** Students will answer multiple choice questions to show creative thinking, innovation, and analyze and evaluate arguments. The AC Critical Thinking Rubric will be used.
- 2. Communication:** Students will answer multiple choice questions to show communication skills. The AC Communication Rubric will be used to assess written, oral, and visual communication skills.
- 3. Empirical and Quantitative Skills:** Students will answer multiple choice questions to calculate, analyze, and summarize data. The AC Empirical and Quantitative Skills Rubric will be used.

B. Assessments for Course Learning Outcomes

1. Students will demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses within imbedded test questions.
2. Students will recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equations within embedded test questions.
3. Students will apply graphing techniques within embedded test questions.
4. Students will recognize, solve and apply a system of linear equations using matrices within an embedded test question.

IV. INSTRUCTIONAL PROCEDURES:

The course is taught using a combination of lectures, discussions, and practice exercises. The amount of time spent using any one technique will vary from class to class and from lesson to lesson as determined to be most appropriate by the instructor.

V. COURSE REQUIREMENTS AND POLICIES:

A. Required Textbooks and Recommended Readings, Materials and Equipment

1. College Algebra, Paul Sisson (Hawkes Learning Systems), 2nd ed.
2. Access to Hawkes Learning Systems (included with new book bought at AC bookstore)
3. Graphing calculator – A TI (Texas Instruments) graphing calculator is highly recommended. The TI-84 graphing calculator will be used by the instructor in classroom demonstrations.

B. Course Policies – This course conforms to the policies of Angelina College as stated in the Angelina College Handbook.

1. **Academic Assistance** – If you have a disability (as cited in Section 504 of the Rehabilitation Act of 1973 or Title II of the Americans with Disabilities Act of 1990) that may affect your participation in this class, you should see Sellestine Hunt – Associate Dean of Student Services, Student Center, Room 200. At a post-secondary institution, you must self-identify as a person with a disability; Ms. Hunt will assist you with the necessary information to do so. To report any complaints of discrimination related to disability, you should contact Mr. Steve Hudman - Dean of Student Affairs, Student Center, Room 101, (936)633-5292 or by email shudman@angelina.edu.
2. **Attendance** – This course conforms to the Angelina College attendance policy as stated in the Angelina College Policies and Procedures Manual. Records will be turned in to the academic dean at the end of the semester. Do not assume that non-attendance in class will always result in an instructor drop. **You must officially drop a class or risk receiving an F.** This is official Angelina College Policy.
3. **Additional Policies Established by the Instructor**

MAKE-UP EXAMS

No make-up exams will be allowed. The grade on the final exam can replace any one missed test or the lowest test grade during the semester.

INTERNET COURSE

Internet classes require a greater degree of independence and responsibility than traditional classes. You must find time in your schedule to work on the class as much as you would in a traditional class. Do not allow yourself to fall behind on your assignments. **Computer problems are NOT an acceptable excuse for not completing assignments.** If you do not have a reliable computer, you should not be taking an Internet course.

Cheating on tests is not tolerated as per Angelina College policy and may result in expulsion from the course. Plagiarism is not tolerated and will result in a zero for any assignment in which it is detected.

CELL PHONES

Students may not have access to cell phones, iPads, etc. during tests.

VI. COURSE OUTLINE:

See attached SUPPLEMENTAL ASSIGNMENTS

VII. EVALUATION AND GRADING:

1. Your grade will be assessed by:
 - a. Three tests valued at 100 points each for a total of 300 points.
 - b. Homework on Hawkes Learning Systems valued at 50 points.
 - c. Project valued at TBA points.
 - d. A comprehensive final examination valued at 100 points.

NOTE: TI-89, TI-92, or any calculator with CAS-software may not be used on the final.
2. **Exams will be taken at a college testing center or with a proctor approved by the Office of Distance Learning and must be taken within the scheduled week.** Proctor-U cannot be used at this time with this course due to scratch paper and formula sheets provided for some exams. Exams may only be reviewed in person with Mrs. Mays.
3. Homework will be completed on Hawkes Learning System and **is required.**
 - a. Hawkes Learning System comes with new books from the AC bookstore. It may also be purchased with a major credit card on the website
 - b. The homework should be done on your home computer if possible. If not, there are campus sites available at the library and the math labs in Rooms S223 and S110. These may be used on a limited space available basis. (No printing or surfing may be done except in the library.)
4. Those who drop the course on or before September 13th will not receive a grade for the class. Those dropping between September 14th and November 6th (inclusive) will receive a W in the course. November 6th is the last day for dropping a course.

The instructor may modify the provisions of the syllabus to meet individual class needs by informing the class in advance as to the changes being made

MATH 1314 Supplemental Assignments

Book Problems are to be done in addition to MyLabsPlus problems – **These are NOT turned in.**

Week	Dates	Sections	Description
1	08/28-09/03	1.3 1.4 1.5 1.6	Properties of Exponents Properties of Radicals Polynomials and Factoring The Complex Number System
2	09/05-09/10	2.1 2.3 2.4	Linear Equations in One Variable Quadratic Equations in One Variable Higher Degree Polynomial Equations
3	09/11-09/17	2.5 2.6	Rational Expressions and Equations Radical Equations
4	09/18-09/24	Exam #1 3.1 3.2	Exam #1 (Sections 1.3 – 1.6, 2.1, 2.3 – 2.6) The Cartesian Coordinate System Linear Equations in Two Variables
5	09/25-10/01	3.3 3.4 4.1 4.2	Forms of Linear Equations Parallel and Perpendicular Lines Relations and Functions Linear and Quadratic Functions
6	10/02-10/08	4.3 4.4 4.5 4.6	Other Common Functions Transformations of Functions Combining Functions Inverses of Functions
7	10/09-10/15	Exam #2 5.1	Exam #2 (Sections 3.1 – 3.4, 4.1 – 4.6) Introduction to Polynomial Equations and Graphs
8	10/16-10/22	5.2 5.3	Polynomial Division and the Division Algorithm Locating Real Zeros of Polynomials
9	10/23-10/29	5.4 6.1	The Fundamental Theorem of Algebra Rational Functions
10	10/30-11/05	7.1 7.2 7.3	Exponential Functions and Their Graphs Applications of Exponential Functions Logarithmic Functions and Their Graphs
11	11/06-11/12	7.4 7.5	Properties and Applications of Logarithms Exponential and Logarithmic Equations
12	11/13-11/19	Exam #3 8.2 8.4	Exam #3 (Sections 5.1 – 5.4, 6.1, 7.1 – 7.5) Matrix Notation The Algebra of Matrices
13	11/27-12/03	8.5 9.1	Inverses of Matrices Sequences and Series
14	12/04-12/10	9.2 9.3	Arithmetic Sequences and Series Geometric Sequences and Series
15	12/07-12/13	Final	Comprehensive Final Exam