

Angelina College – Division of Science and Mathematics
MATH 1314 – College Algebra
Instructional Syllabus – Fall 2022 (TR 8:00-9:20am)

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.

BASIC COURSE INFORMATION

MATH 1314 – College Algebra: 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. Three lecture hours each week. Prerequisite: Meet TSI college readiness standard for Mathematics or equivalent.

Instructor: Kelly Ward
Phone: 409-224-0272

Office Location and Hours: Meeting location and time by appointment
Email Address: kward@angelina.edu or kward@brookelandisd.net

INTENDED STUDENT OUTCOMES

Core Objectives Required for this Course (assessed with embedded test questions and other assignments)

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

Course Learning Outcomes for all Sections (assessed with embedded test questions)

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

MATERIALS

- ✓ *College Algebra*, Jay Abramson (OpenStax), ISBN: 978-1-938168-38-3; Free online at <https://openstax.org/details/books/college-algebra>
- ✓ Access to Edfinity (code purchased online or at AC bookstore)
- ✓ Graphing calculator: A graphing calculator is required. The TI-84 graphing calculator will be used by the instructor in classroom demonstrations. You may NOT use a calculator with CAS (such as TI-89, TI-92) on tests.

ATTENDANCE

Attendance is required per Angelina College Policy and will be recorded every day. Any student with 3 consecutive or 4 cumulative absences or who misses 12% or more of course's scheduled meeting time may be dropped from the class. Records will be turned in to the Registrar's Office 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.

CLASS CONNECTION

We will use Blackboard Collaborate to connect the Brookeland and Apple Springs classrooms.

EVALUATION AND GRADING

Your grade will be assessed by the following:

- ✓ Five tests which account for 75% of the final average (the 5th test is the comprehensive final exam)
- ✓ Test Helper Sheet: You may bring 1 piece of regular size notebook/printer paper with anything written on it (front and back) to use during the test. You may use all previous Test Helper Sheets along with one additional piece of paper during your Final Exam.
- ✓ No make-up tests without prior arrangement will be allowed. The grade on the final exam can replace any one missed test or the lowest test grade during the semester.
- ✓ Homework on Edfinity which accounts for 20% of the final average
- ✓ Core Assessment administered in Blackboard which counts for 5% of the final average
- ✓ Missing 5 assignments is considered lack of participation and may result in an instructor drop.
- ✓ Reviewing the material in your online textbook before class will not directly affect your grade but is highly recommended for your success in the course.

STUDENT CONDUCT

- ✓ A positive environment for learning will be maintained by students being courteous to each other and to the instructor. Behavior (such as sleeping, conversing loudly, or tardiness) that distracts from the learning environment will result in a warning and will result in further action if continued. Regular attendance is expected as per college policy. 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 must be turned off or on silent mode during class instruction. Students may not access cell phones at all during tests. Accessing your phone in any way during a test will be regarded as cheating.

WITHDRAW DATES

Last day to drop with a 100% refund: 8.19.22; last day to drop with a 70% refund: 9.12.22; last day to drop with a 25% refund: 9.19.22; last day to drop and receive a W in the course: 11.7.22.

INSTITUTIONAL POLICIES

This course conforms to the policies of AC as stated in the Angelina College Handbook. For detailed information on Angelina Institutional Policies, see the Concourse Syllabus in Blackboard. You will find information on Institutional Attendance Policy, Educational Accommodations, Notice of Non-Discrimination, Technology Requirements, Course Format and COVID-19, Password Management, Syllabus Modification, AC COVID Protocols, Course Assistance, Technical Support, Tutoring, Testing Center, Roadrunner Central, Additional Assistance, Grade Appeals, and Student Handbook.

MATH 1314 COURSE OUTLINE

Please review the material in the online textbook for each assigned section BEFORE arriving to class each day; we will use our class time to view examples and complete practice problems. We need to use two Fridays (10.28.22, 11.18.22) to make up for holidays that do not match between the school calendars and an absence by me. We will use additional Friday lessons in the event of other interruptions to the class calendar. We will NOT connect on Friday unless I inform the class.

Lesson	Date	Sections	Description
1	8.23	Setup 1.2	Syllabus, TI-84s, OpenStax, Edfinity, Blackboard, Collaborate, Exponents and Scientific Notation Due 8.28.22; Late by 9.25.22
2	8.25	1.3	Radicals and Rational Exponents Due 8.28.22; Late by 9.25.22
3	8.30	1.4	Polynomials Due 9.4.22; Late by 9.25.22
4	9.1	1.5	Factoring Polynomials Due 9.4.22; Late by 9.25.22
5	9.6	2.2 2.3	Linear Equations Due 9.11.22; Late by 9.25.22
6	9.8	2.7	Linear Inequalities Due 9.11.22; Late by 9.25.22
7	9.13	2.4 2.5	Complex Numbers Quadratic Equations Due 9.18.22; Late by 9.25.22
8	9.15	2.5	Quadratic Equations Due 9.18.22; Late by 9.25.22
9	9.20	2.6 1.6 2.2	Other Types of Equations Rational Expressions and Equations Due 9.25.22
10	9.22	1.6 2.2	Rational Expressions and Equations Due 9.25.22
11	9.27	Test 1	Test 1 (Sections 1.2-1.6, 2.2-2.7); One page test helper sheet allowed
12	9.29	2.1 2.2	Coordinate System and Linear Equations in Two Variables Due 10.2.22; Late by 10.18.22
13	10.4	3.1	Functions and Function Notation Due 10.9.22; Late by 10.18.22
14	10.6	3.2 3.3	Domain and Range; Increasing and Decreasing Due 10.9.22; Late by 10.18.22
15	10.11	3.4	Operations with Functions and Composition Due 10.16.22; Late by 10.18.22
16	10.13	3.5	Transformations Due 10.16.22; Late by 10.18.22
17	10.18	3.7	Inverse Functions Due 10.19.22
18	10.20	Test 2	Test 2 (2.1-2.2, 3.1-3.5, 3.7); One page test helper sheet allowed
19	10.25	5.1	Quadratic Functions Due 10.30.22; Late by 11.6.22
20	10.27	5.2 5.3	Power Functions and Polynomials Due 10.30.22; Late by 11.6.22
21	10.28	5.4 5.5	Dividing Polynomials and Zeros of Polynomials Due 10.30.22; Late by 11.6.22

22	11.1	5.6	Rational Functions (Ward out of town; watch video and take notes; no Collaborate connection) Due 11.6.22
	11.3		Ward out of town; no Collaborate connection; prepare for Test 3
23	11.8	Test 3	Test 3 (5.1-5.6); One page test helper sheet allowed
24	11.10	6.1 6.2	Exponential Functions and Their Graphs Due 11.30.22
25	11.15	6.3 6.4	Log Functions and Their Graphs Due 11.30.22
26	11.17	6.5	Log Properties Due 11.30.22
27	11.18	6.6	Exponential and Log Equations Due 11.30.22
	11.22		HS Holiday; no Collaborate connection
28	11.29	7.7	Solving Systems of Equations Using Inverses Due 11.30.22
29	12.1	Test 4	Test 4 (6.1-6.6; does NOT include 7.7); One page test helper sheet allowed
30	12.6	Final Exam	Comprehensive Final Exam; Five page test helper sheet allowed