

**ANGELO STATE UNIVERSITY/GLEN ROSE HIGH SCHOOL  
DUAL CREDIT  
INDEPENDENT STUDY AND COLLEGE ALGEBRA  
MATH 1314 – GR1 (YEAR-LONG)  
2023-2024**

**I. INSTRUCTOR – MRS. JAMI LOVELADY**

Office: 504

Tutorial Hours: By Appointment

Conference: Eighth Period

Phone: 254-898-3824

E-mail: [loveja@grisd.net](mailto:loveja@grisd.net)

**II. INTRODUCTION**

This course will take a school year to complete. The students in this course, in most cases, will have completed Algebra II before enrolling. After successfully completing this course in May, the student will receive credit for an Independent Study, high school math course, and College Algebra.

Algebra II is a required high school mathematics course in Texas. College Algebra is essentially a high school Algebra II course with some Pre-Calculus thrown in. In most colleges, it is the first math course that is required for non-science and non-math majors. This course is required for example, by most colleges for elementary education majors, journalism majors, and criminal justice majors.

We will begin the year with a review of Algebra I and will then go quickly into Algebra II topics. We cover polynomials, quadratics, graphing, functions, logs, exponentials, etc. By May, we will have covered all of the topics listed on the syllabus provided by Angelo State University.

College Algebra, as mentioned before, is accepted at most colleges as a math credit. This of course, will depend on the college so each student should contact their prospective institution and check. Most colleges will take a “C” or better as passing which means that they will receive credit for the course. However, there are some colleges that still accept a “D” as passing. Again, the student should check with the college they plan to attend to see what their policies are.

**In order to receive high school credit, the student must make a “C” or better.**

**III. METHODS OF INSTRUCTION**

The instructor is required to cover all of the topics listed on the syllabus from Angelo State University in order for the student to receive credit for College Algebra. The material will be covered using the outline provided at the end of this course description.

***Face-to-Face Delivery***

With this method, the student will be in the class room with the teacher present. The teacher will provide instruction, practice problems, and will assign homework that should be completed and be ready to turn in the next day.

Each class will begin with a warm-up exercise of some kind – deductive reasoning problems, word problems, or review problems. After discussion of the warm-up the instructor will discuss the homework given during the previous class. After the homework has been discussed, the instructor may choose to go on to the next topic, review, or give a quiz.

The instructor will discuss the next topic with the class by giving notes and examples. Then the students will be given several problems to work in class under her supervision. These problems will serve as guided practice. After a sufficient amount of time, the instructor will work problems on the board from the guided practice and will then assign more problems that will be done by the student on his/her time. The instructor will keep the number of problems assigned to a minimum, but the student is encouraged to work more problems if they feel that more practice is needed.

As mentioned previously, the instructor will give pop quizzes to determine what progress the students have made in a particular area. These quizzes will tell the instructor whether or not more time needs to be spent in this area. After a topic has been completed, a test will be given. The test will be graded, and discussed during class.

### ***Online Instruction***

With this method, instruction will be delivered through recorded videos that may be found in Canvas. Zoom meetings will be held during the time class would be held in a “face-to-face” situation. During the Zoom meetings, the teacher will answer questions about the video and homework assignment. Attendance is required for these Zoom meetings.

Students will be assigned work through Canvas and/or Big Ideas. In some cases, the student may be expected to submit assignments to the teacher through Canvas. There will be due dates, just as there would be in the traditional classroom, which the student is expected to follow.

\*\*\* Please note that the date for each test will be given in advance, so the student should make plans to take the test at that time. Most of these tests will have a “free answer” part that must be submitted to the teacher through Canvas. For this addition, showing all work will be required. The addition to the test must be submitted by the due date given.

### ***Blended Instruction***

This method is a combination of the previous two methods. This method is not offered at Glen Rose High School.

## **IV. EXPECTATIONS**

Many of you will be heading to college only a few months after this course ends. With that in mind, I will try to treat this as close to a college course as I can. That means that I will expect the student to take the initiative if they encounter a problem, and need some help. I am available for tutorials, but you will need to make the effort to come in.

Being in college also means that while you are in my class for forty-five minutes, I don't want to see you doing your English composition that is due in the afternoon, or studying for your Dual Biology test that will be given during the next period. If that's what you feel is important, then you might need to arrange your schedule so that so things may be accomplished. My class is important to me. Your English teacher believes that his class is

important, as does your Biology instructor. Each of your classes is important, and each will count toward your overall GPA and will be required for your college diploma.

Cell phones, laptops, and ear buds should be in your pocket, backpack, or purse during class. They should not be on your desk or in your hands during class. In many colleges, you will not be able to use any electronic devices once you enter the classroom. These devices are a distraction!! If you need to take a quiz in Canvas, or work on an assignment in Big Ideas, you may use your laptop.

In addition, you will need to watch and follow due dates. Don't expect me to treat this class as I do my geometry classes. I expect more from the students in this class. In college, you will not be able to turn papers in several days late. They are due on the due date, which is true for this class. The same is true for tests. If you miss a test, you will need to take care of that quickly.

Finally, remember that this class does not finish up until May. Many seniors stop working at the end of the fifth six weeks because they know that their class rank will be determined through the fifth six weeks. **Your Angelo State classes will continue into the six sixth weeks which mean that grades during that time will be averaged into the final grade that I send to Angelo State. If you stop doing your work after the fifth six weeks, that will impact the grade that is calculated for Angelo State.**

## V. INSTRUCTIONAL MATERIALS

Text: College Algebra, 5<sup>th</sup> Edition, by Robert Blitzer. Published by Pearson/Prentice Hall.

\*The student will need to provide a book cover for the textbook. The book needs to be covered at all times!!

Calculator: An graphing calculator is not required. In fact, the use of a graphing calculator is discouraged for most of this course. A calculator will be needed when we begin dealing with exponentials, logarithms, and systems with three variables. If you would like to check out a calculator, please get the "Calculator Sheet" signed and return it. We should have enough calculators for anyone that wants one. The student will need to provide batteries for their calculator if they are not available from the teacher.

Students are **not** required to keep a notebook for College Algebra, but as a teacher, I would strongly suggest it. The notebook is a good place to keep up with tests, daily work, and especially notes. We will cover a lot of ground between August and May. Every student will be expected to take the mid-term exam in December which is cumulative, and the final exam in May which will cover all material covered during the year. Those notes and tests might make for some good review material.

**Materials such as the book, paper, and pencils should be brought to class each day!**

Please do not expect the instructor to provide these materials for you if you have forgotten them.

## VI. STUDENT LEARNING OUTCOMES

1. **Students will demonstrate factual knowledge including the mathematics 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.

## **VII. TUTORIALS**

I usually arrive at the school around 7:15 am. If you need some help, you may come then, or stay for an afternoon tutorial session. The only time that I won't be available is if we have a faculty meeting, I have a parent conference, or I have to be present for duty. Also, I can't guarantee that there will be a tutorial bus available to take students home if they choose to stay in the afternoons. If you plan to stay for an afternoon tutorial, you will need to make arrangements to get home..

It is important for the student to decide what is important to them. If they are having difficulties in College Algebra, then they should be coming in for tutorials.

### **\*\*\*\* Do not use athletics or band as an excuse for not attending tutorials!!**

Our coaches and band directors are committed to making academics as important as extracurricular activities. With that in mind, they will not keep you from attending tutorials. The only person that can keep you from getting help, would be you. If you do need to come in for tutorials, most of our coaches and directors will require that you bring them a note from me. They need to know that you were where you said you would be.

## **VIII. ATTENDANCE AND ABSENCES FOR HOLY DAYS**

Each student is expected to maintain regular class attendance.

If you must be absent, please contact the instructor as soon as possible. The instructor may be contacted by phone or computer. In fact, the student should make every attempt to notify the instructor before the next class meeting. If a test is missed, the test needs to be taken before the next class meeting so that the other students may receive their graded test and the test may be discussed in class.

**Extracurricular Absences** – A student involved in an extracurricular activity must notify his or her teacher ahead of time about any absences. If the student is involved in any extracurricular activity, it is the student's responsibility to ask for assignments prior to the absence. The student is still responsible for taking a quiz or test on the assigned date even if the student had an absence prior to the extracurricular activity. Any work missed during the absence such as book work, worksheets, or projects, should be completed and turned in to the

teacher once the student returns. **I would also suggest checking Canvas to any student that is absent.**

**Other Absences** – The student will be responsible for obtaining and completing the work missed during an absence. All daily work and/or tests that are missed during an absence should be completed by the second day following that absence. A student who does not make up assignments within the time allotted, will receive a late grade or zero for the assignment. **Again, I would suggest checking Canvas to any student that is absent.**

**Any student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence.**

**The last day to withdraw from this course is November 30.**

## **IX. HOMEWORK AND QUIZZES**

The instructor will assign homework during each class meeting. Most of the homework that is assigned will come from the textbook. There are times, however, that an assignment will be made in Big Ideas – Algebra II. The number of problems will be kept to a minimum. However, if the student feels that more practice is needed, they should work more problems than were assigned.

**Homework will not always be graded**, but will be discussed in class. If you don't have a question, then I will ask the questions. It is important that your work be shown. Arriving at the correct answer is important, but often it's the way you got there that's the most important part to me. So...please show your work!

Quizzes will be given at various times during the semester. Quiz questions will be taken from the homework and class discussion. Most quizzes will be taken in Canvas. Sometimes, the quiz will consist of only a few problems where the procedure for finding the answers must be shown.

## **X. TESTS**

There will be approximately five tests given during each semester. The material covered on the test will reflect the material covered in class, on the homework, and on the quizzes. The tests will not necessarily cover a particular chapter, but may instead cover a particular topic.

Many of the tests will have multiple-choice questions, and some true and false questions. Please remember that there will also be a lot of free answer questions on your tests. Many of these questions will require that work be shown. These questions tell me a lot more about your knowledge of the subject than do multiple-choice questions.

You will be expected to finish each test during the time allotted for class. You will need to make sure that you are ready to begin on day of the test, pace yourself, and skip problems that you aren't sure about so that you may come back to them when you have finished everything else. **You will not be able to stay after class to finish, come in at lunch to finish, or come in after school to finish.**

**The student should make every effort to attend class when a test is scheduled. If the student is to be gone on the day of a test, the test should be taken either before the**

**absence, or the day the student returns. If the students is absent the day before a test, the student will be expected to take the test as soon as they return. Test dates will be announced well in advance.**

**Make-up tests should be scheduled with the teacher for a day after school. I will not allow tests to be taken while I am teaching my other classes.**

## **XI. MAKE-UP WORK**

The student should make every attempt to attend class each day and not be tardy.

The tests will be given on the assigned date. The student should make every effort to attend class when a test is scheduled. Make-up tests must be scheduled, and the instructor will not drop a test grade or give a “re-test.” **If you miss a test, you will need to make it up within a week. If it has not been taken care of in a week, you will receive a zero for that test.**

If homework was missed, it is the responsibility of the student to make sure it is turned in. The instructor will not remind the student of any missing work. The student should check their grades online each week. The instructor will try to have everything in the grade book by the end of school on Monday.

**Extracurricular Absences** – A student involved in an extracurricular activity must notify his or her teacher ahead of time about any absences. If the student is involved in any extracurricular activity, it is the student’s responsibility to ask for assignments prior to the absence. The student is still responsible for taking a quiz or test on the assigned date even if the student had an absence prior to the extracurricular activity. Any work missed during the absence such as book work, worksheets, or projects, should be completed and turned in to the teacher once the student returns. **If you miss a test, you will be expected to make that test up within a week of when the original test was given. If you do not make it up, then you will receive a zero for that test.**

**Other Absences** – The student will be responsible for obtaining and completing the work missed during an absence. All daily work and/or tests that are missed during an absence should be completed by the second day following that absence. A student who does not make up assignments within the time allotted, will receive a late grade or zero for the assignment.

## **VII. SEMESTER GRADE COMPUTATION**

There will be at least five tests given each semester. The homework and quizzes will be averaged and counted as 20% of the final grade. The test average will count as 60% of the final grade, and the comprehensive final exam will make up the remaining 20% of the grade.

The semester grade will assigned according to the table below.

<u>Numerical Average</u>	<u>Letter Grade</u>
90-100	A
80-89	B
70-79	C
60-69	D
0-59	F

## VIII. ONLINE GRADEBOOK, CANVAS, AND SCHOOL EMAIL

Each student and their parents/guardians have access to the student's grades online, every day and at any time. It is the student's responsibility to check on **their** grades. (Parents should discuss any zeroes that they see in the grade book with their student.) Please make a point to look at your grades at least once a week. I will take several grades during the week, and I will make every effort to grade the work as it comes in.

There are several ways to note that an assignment is missing. Please notice the notation in the grade book. If you are absent and miss an assignment, there will be a **zero** there until the work is completed. This is also true for an assignment that is simply not turned in. If the zero is for a test grade, that probably means that the test was missed and has not been made up yet. If the assignment grade has not been entered yet, you will see a "\*" for that grade.

Canvas is an excellent educational tool. I would suggest, as does our Technology Department, that you access it each night. You will find my syllabus/outline there, a list of assignments, videos, flipcharts, and occasionally a quiz or test to take. Canvas is also where students will submit their work, if we transition to an online learning situation. Many colleges use this type of platform to communicate with their students, and in some cases it may be your only way to communicate with a professor. Please become familiar with Canvas.

Each student has a GRISD email account. It is important that the student look at their email each day, especially during an online learning situation. During a span of two months, a student could receive as many as eighty emails in their account, and most of those messages are coming from the school. It is also important that students use that GRISD account to send messages to their teachers. If you are using a personal email account to send a message, many times those messages will go into "junk" mail, or may not come through at all.

## IX. ACCOMMODATIONS FOR DISABILITIES

This is a college course so persons with disabilities which may warrant academic accommodations must contact the Office of Student Services at Angelo State University in Suite 112, Houston Harte University Center (325)942-2047 ([studentservices@angelo.edu](mailto:studentservices@angelo.edu)) in order to request such accommodations prior to any accommodations being implemented. **You are encouraged to make this request early** in the semester so that appropriate arrangements can be made.

## X. ACADEMIC DISHONESTY

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>

Academic dishonesty in this classroom will not be tolerated. Anyone caught cheating will receive a "0" for the work, and the instructor will then report the incident to the proper authorities for appropriate disciplinary action.

## XI. COURSE OUTLINE

Date

Objectives

August	Real Number System Exponents – Rules PEMDAS - Order of Operations Working with Radicals
September	The Pythagorean Theorem Distance and Midpoint Formulas Imaginary and Complex Numbers Equations with Radicals Completing the Square The Quadratic Formula Polynomials <div> Adding, Subtracting, Multiplying, and  Dividing  Factoring </div>
October	More Factoring Solving Quadratic Equations by Factoring Begin Graphing Linear Equations <div> Intercepts  Slopes  Parallel and Perpendicular Lines  Writing Equations of Lines  Domain and Range  Working with Functions </div>
November	More with Lines <div> Inverses  Graphing Inequalities with Two Variables </div> Inequalities <div> Linear  Compound  Absolute Value </div>
December	More with Inequalities <div> Quadratic  Rational  Graphing Inequalities with Two Variables </div> Systems of Equations <div> Solving by Cancellation and Substitution  Cramer's Rule </div>
December	<b>Midterm Exam</b>
January	Systems of Inequalities Matrices The Conics <div> Circles and Ellipses </div>
February	The Conics <div> The Parabola  The Hyperbola </div> Square Roots



	Absolute Value
March	Exponential Functions <ul style="list-style-type: none"> <li>Basics</li> <li>Properties</li> <li>Equations</li> <li>Graphing</li> <li>Compound Interest</li> </ul> Logarithms <ul style="list-style-type: none"> <li>Basics</li> <li>Change of Base</li> <li>Properties</li> <li>Equations</li> <li>Graphing</li> </ul>
April	Polynomial Equations <ul style="list-style-type: none"> <li>Synthetic Division</li> <li>Factoring</li> <li>Other Methods</li> </ul> Working with Rational Expressions
May	Rational Equations <ul style="list-style-type: none"> <li>Rational Inequalities</li> <li>Graphing Rational Functions</li> <li>Variation</li> </ul> Review for Final Exam
<b>Final Exam</b>	<b>Friday – May 3, 2024</b>

**\*This schedule is subject to change as deemed necessary by the instructor.**