

College Algebra (MATH 1314)

CREDIT

3 Semester Credit Hours (3 hours lecture, 0 Lab hours lab)

MODE OF INSTRUCTION

Face-to-face

PREREQUISITE/CO-REQUISITE:

TSI Complete for Math

COURSE DESCRIPTION

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.

COURSE OBJECTIVES

Upon completion of this course, the student will be able to:

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.

CORE OBJECTIVES MEASURED

1. **Critical Thinking Skills:** To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
2. **Communication Skills:** 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.



**LAMAR INSTITUTE
OF TECHNOLOGY**

INSTRUCTOR CONTACT INFORMATION

Instructor: Guy Harwell

Email: gharwell@lit.edu

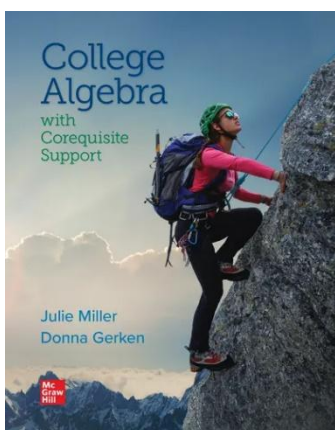
Office Phone: (409) 247-4757

Office Location: Building T5, Room 103

Office Hours: By appointment

- My office hours are available on Starfish.
- To schedule an appointment please use Starfish.

REQUIRED TEXTBOOK AND MATERIALS



ALEKS *College Algebra*. Physical textbook not required. Online **subscription to ALEKS is required** and comes with eBook. This is included in the ELE bundle, or you may purchase subscriptions directly from ALEKS.

If opted out Aleks subscriptions vary, 6-month \$99.95

Materials:

Paper, pencils, and a calculator (scientific or four-function), access to a computer with internet access.

ATTENDANCE POLICY

Attendance is required, online students should login and work on assignments 2-3 times per week, minimum.

Note that if you do not login to our class on Blackboard for one week you can be counted as not participating in the course. Also, you must complete at least one assignment, such as a quiz, during the first week of class you can be counted as not participating.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified date as listed in the College Calendar on the [Student Success](#) web page. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

COURSE CALENDAR

<i>Week Of:</i>	<i>Sec</i>	<i>Topic</i>	<i>Homework due:</i>
08/23		Introduction	Homework for sections 3.3 due on 08/29 Setup Quiz due on 08/29
	3.3	Complex Numbers	
		Setup Quiz, Quiz 3.3, Quiz 3.6	
08/30	3.6	Solving Quadratic Equations	Homework for sections 3.6, 4.3 due on 09/05
	4.3	Rational Equations	
09/06	4.5	Rational Exponents	Homework for sections 4.5, 4.6 due on 09/12
	4.6	Radical Equations	
09/13	4.7	Equations in Quadratic Form	Homework for sections 4.7, 5.1 due on 09/19
	5.1	Rectangular Coordinate System	
09/20	5.3	Functions and Relations	Homework for section 5.3 due on 09/26
		Exam 01 (Sections 3.3, 3.6, 4.3, 4.5 – 4.7, 5.1)	
09/27	5.4	Linear Equations in Two Variables	Homework for sections 5.4, 6.1 due on 10/03
	6.1	Transformations of Graphs	
10/04	6.2	Symmetry and Piecewise Functions	Homework for sections 6.2, 6.4 due on 10/10
	6.4	Function Composition	
10/11	7.1	Quadratic Functions	Homework for sections 7.1, 7.2 due on 10/17
	7.2	Polynomial Functions	
10/18	7.3	Polynomial Division	Homework for sections 7.3, 7.4 due on 10/24
	7.4	Zeros of Polynomials	
10/25		Exam 02 (Sections 5.3, 5.4, 6.1, 6.2, 6.4, 7.1 – 7.4)	Homework for section 8.1 due on 10/31
	8.1	Rational Functions	
11/01	8.2	Graphs of Rational Functions	Homework for sections 8.2, 9.1 due on 11/07
	9.1	Inverse Functions	
11/08	9.2	Exponential Functions	Homework for sections 9.2, 9.3, due on 11/14
	9.3	Logarithmic Functions	
11/15	9.4	Properties of Logarithms	Homework for sections 9.4, 9.5 due on 11/21
	9.5	Exponential Equations and Applications	
11/22	9.6	Logarithmic Equations and Applications	Homework for section 9.6 due on 11/28
		Exam 03 (Sections 8.1, 8.2, 9.1 – 9.5)	
11/29	11.1	Systems of Linear Equations Using Matrices	Homework for section 11.1 due on 12/05

		Final Review	
12/06		Final/Core Assessment (Comprehensive)	Final Exam on 12/01

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- Test 60%
- Assignments 20%
 - Homework 10% of Assignments
 - Quizzes 10% of Assignments
- Final Exam 20%
 - Core Assessment 20% of Final Exam

GRADE SCALE

- 90-100 A
- 80-89 B
- 70-79 C
- 60-69 D
- 0-59 F

TECHNICAL REQUIREMENTS

For the latest technical requirements, including hardware, compatible browsers, operating systems, etc., review the Minimum Computer and Equipment Requirements on the [LIT Online Experience](#) page. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

ARTIFICIAL INTELLIGENCE STATEMENT

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses.

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

ADDITIONAL COURSE POLICIES/INFORMATION

Math AI Policy

- **No AI tools, apps, software, etc. are to be used on any work that is scored, graded, assessed, etc.**
- This includes all homework, exams, tests, projects, assessments, quizzes, discussions, etc.
- Failure to follow these guidelines (as deemed by the instructor) may be considered academic dishonesty and will be managed by instructor discretion or for exams, the Math testing policy.

Math Testing Policy

All online Math courses will use Respondus Lockdown Browser and Monitor **(does not apply to face-to-face classes)**. This means students will be recorded when taking exams and will need a webcam and microphone.

If a student is suspected of cheating, such as with AI use or other cheating methods, the student will be given a zero on the exam. The student will have one week of being notified to have a meeting with the instructor either face to face in the instructor's office or through an online method through such means as Microsoft Teams or Zoom. During this meeting, the student may be asked to work out problems or even the entire test in front of the instructor to adjust the student's grade.

If the student is caught using AI or the student fails to meet with instructor within one week of notification or the student is unable to complete the work on the exam with instructor present, a zero will be given for that exam or assignment, and there will be no opportunity for a redo.

Attendance

Information

- Attendance for face-to-face courses will be taken at every class meeting.
- The method can vary and can include:
 - Roll call
 - Sign in sheet
 - Please only sign in for yourself and no one else. If you do sign for someone else, it is considered academic dishonesty (see Student Handbook).
 - Instructor verification

Tardy

- You are considered tardy if you come in after attendance is taken.
- It is your responsibility to make sure that you are counted as present in the class.
 - If you are tardy, it is your responsibility to make sure that you talk with the instructor after class.
 - If you are tardy and you are not counted present, you will be counted absent for that class day.
 - This is to say that you only have that class session to let me know you are tardy, otherwise you are counted as absent.
- If you come to class and leave you will be counted as absent.
- If you come to class and leave for an extended period (as deemed by the instructor) and then come back to class, you will be counted as absent.
- Three tardies will count as an absence.

Remarks

- If you have any questions about attendance or issues you should contact me.
- **If you stop attending class (or are thinking of stopping) you should come and talk with me first so we can discuss any options that might be available for you.**

Assignments

Homework Assignments

- Homework assignments are assigned for every topic that we cover in the course.

- Homework is not optional and must be completed by their respective due dates.
- Failure to complete the homework assignment by its due date will result in a loss of points.
- We will be using ALEKS for our homework for the course.

Homework Assignment Due Dates

- To find the due dates for the homework assignments please refer to ALEKS.

Other Assignments

- We can have other assignments during our course.
- Other assignments can include activities such as projects, worksheets, papers, etc.
- They will be announced via our online course website (Blackboard) and/ or by the instructor in class (if applicable).
- Please see our online course website (Blackboard) and/ or the instructor.

Class Etiquette

Information

- Please be respectful of the other people and me in class.
- If you have any questions or concerns about the class, please come and talk with me outside of class (I am always concerned with how you are doing in the class).

Remarks

- Please remember that mathematics can be a difficult subject and I am here to help you, but we need to be respectful of everyone (including me) and address concerns outside of class.
- If I ask to meet with you (by video conference for online courses), please be respectful and meet with me.

Communication

Information

- The best way to reach me is by email (gharwell@lit.edu) or my office hours (see Starfish).
 - For email, please allow 24 – 48 hours
 - Emails at or after 5:00 pm on Friday might not be answered before the following Monday.
 - When emailing me please use your college email address and put the class subject and section in the subject line.
 - Example class subject and section: MATH 1314.2A4

- Please check our online class website (Blackboard) daily for announcements.
- Any announcements about the class will be on our online class website (Blackboard).

Communication Etiquette

Make sure that all communications are polite and respectful. Please use professional communication etiquette. Remember, email is formal written communication and should be treated as such.

Electronic Devices

Information

Face-to-Face Courses

- Electronic devices include laptops, iPads, all phones, tablets, headphones, etc.
- **Electronic devices are not allowed during class time (including during exams/ quizzes).**
 - If you are using a tablet to take notes you need to come and talk with me first and get my approval.
 - I also reserve the right to ask you to put it away at any point in the class, even if you have prior approval.
 - Laptops/ phones are not appropriate for taking notes with mathematical notation in our class and so are not allowed at all (we will be writing our notes by hand).

Calculators

- No calculators on phones, laptops, tablets, etc. are to be used in the class at all.
- The following calculators are allowed during class time.
 - TI-83 series, TI-84 series, scientific calculators, and four function (basic) calculators.
- All calculators should be approved by the instructor.
- I will let you know if a calculator is allowed on an exam.

Exams/ Final Exam

Face-to-Face Courses

Information

- We will be having several major exams and a cumulative final exam (this means that the final exam is over everything in the course).
- You can find our exam schedule on the course calendar (in the syllabus).
- Please plan to be in class and ready to take the exam.
- We will be having paper exams/ quizzes for our face-to-face course(s).

Expectations

- You will be expected to come to class on time and to take the exam/quiz in person in our class, unless other arrangements have been made with the instructor ahead of time.
- You will be expected to write fully justified solutions to the problems using correct mathematical notation and terminology as deemed by the instructor.

Prohibited Items

- No electronic devices are allowed including laptops, phones, headphones, electronic watches, iPads, tablets, etc.
- No notes, books, textbooks, etc. are allowed.

Remarks

- Grades, scores, correctness, quality, etc. are strictly the decision of the instructor
 - If you wrote the solution correctly, how correctly, if you got a correct answer, if you did not get a correct answer, if you are using the correct methods to solve the problem, how many points (if any) are awarded for a solution or part of a solution, etc. are all strictly the decision of the instructor of the course.
- Please do not take pictures, video, recordings, etc. of the exam.
- If you have any questions on this, please feel free to ask me.

Extra Credit Opportunities

Information

- We may have extra credit opportunities during the course.
- The extra credit opportunities will be announced during the normal course of the semester and will be on our course website (Blackboard).
- To receive points for the extra credit, you must follow all instructions completely and completely complete the opportunity.
- The instructor will determine how much if any points are awarded for the extra credit opportunity.

Remarks

- Please remember that extra credit is a reward for extra work that contributes to your learning.
- It is not to replace an exam, quiz, assessment and it is not points given to you to bring up a poor score or poor performance.
- Extra credit opportunities are above and beyond your normal course work. That is to say that you should focus on your normal coursework and then extra credit.

Late Work

Information

- Late work can be accepted up to a week late (with a penalty not exceeding 20%).
- The expectation is that you talk with me before the due date.
 - You don't need to let me know if you are going to be late for the homework assignments this is set up already in ALEKS.
 - If you have any questions about this, please feel free to contact me.
- Please remember that if you do not turn in your work before the due date, you can receive a zero for the assignment.
- It is the instructor's decision whether late work is accepted or not.
- If you have questions about this, please feel free to contact me.
- If the work is accepted after the due date, it can take several weeks to get back.
 - This means that you may not get the assignment grade or feedback until several weeks after you turn in the work late.

Late Assignments

- Homework assignments can be accepted late for up to one week.
 - The late assignments will have a per day penalty assessed or an overall penalty depending on the assignment.
- You can find the due dates for homework on ALEKS.
- Other assignment due dates can be found on our course calendar and/or class website (Blackboard).

Late Written Work (Online Courses)

- Written work (see Exams section) not submitted within 15 minutes completing the exam will be considered late.
- The folder that you submit the work to on our course website (Blackboard) will close after the due date/time has passed and you won't be able to submit it.
- You should contact me as soon as possible and send me the single pdf file of your work.

Core Assessment

Information

- The core assessment is a part of the course to assess the learning and comprehension in the course.
- It generally consists of working on more involved questions that require a lot of the skills and knowledge that the course covers (for example an application problem).
- The core assessment is part of the final exam and worth 20% of the final exam.

Make-up Assignments, Exams, Quizzes, Etc.

Information

- Make-ups assignments, exams, quizzes, etc. are not given without the approval of the instructor.
- You will need to provide documented evidence for the reason you need to take the make-up assignment, exam, quiz, etc.
 - This can take the form of a doctor's note, jury summons, etc.
- Make-up is not given without acceptable reason and evidence.
- It is the instructor's decision whether to accept the reason and evidence provided and to give the make-up or not.

Quizzes

Information

- Quizzes are given to assess students learning.
- They can be in-class or online.
- They can be announced or not.
- Quizzes count for **10% of your assignment grade**.
- If you have any questions, please contact me.

Retakes

- **There are no retakes of any exams and quizzes.**
- If you have any questions, please feel free to contact me.