Advanced Intermediate Algebra (TMTH 0214)

INSTRUCTOR CONTACT INFORMATION

Instructor:	James Jean
Email:	jjean@lit.edu (Preferred)
Office Phone:	(409) 880-8321
Office Location:	T5 Rm. 103
Office Hours:	MW: 8:30 – 9:00; 12:00 – 2:00
	TR: 8:30 – 9:30; 12:30 – 1:00
	F: 8:00 – 10:00

CREDIT:
2 Semester Credit Hours (2 hours lecture)

MODE OF INSTRUCTION
Face to Face

Prerequisite/Co-requisite:
- A score of 336-349 on the TSI-Assessment placement test.
- Must be co-enrolled in MATH 1314 College Algebra.

Course Description
A study of relations and functions, inequalities, algebraic expressions and equations (absolute value, polynomial, radical, rational), with a special emphasis on linear and quadratic expressions and equations.

Required Textbook and Materials
1. MyMathLab Standalone Access Code
    a. NOTE: Not necessary if code already purchased for MATH 1314
        i. May be purchased online at **www.mymathlab.com**
        ii. May be purchased at a local bookstore: **ISBN 032119991X**
2. A basic scientific calculator; *please check with your individual instructor as to the specific type of calculator required.*

Course Objectives
Upon completion of this course, the student will be able to:
1. Define, represent, and perform operations on real and complex numbers.
2. Recognize, understand, and analyze features of a function.
3. Recognize and use algebraic (field) properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial, radical, and rational expressions.
4. Identify and solve absolute value, polynomial, radical, and rational equations.
5. Identify and solve absolute value and linear inequalities.
6. Model, interpret, and justify mathematical ideas and concepts using multiple representations.

7. Connect and use multiple strands of mathematics in situations and problems, as well as in the study of other disciplines.

Grade Scale
90 – 100	DA
80 – 89	DB
70 – 79	DC
0 – 69	DF

Course Evaluation
Final grades will be calculated according to the following criteria:

TMTH 0214 Course Assignments	40%
MATH 1314 Course Average	60%

Course Requirements
1. The student must purchase all of the required course materials.
2. The student will be expected to have access to the Internet and a computer.
3. Blackboard and MyMathLab logon and access to course a minimum of four times per week.
4. Additional course requirements as defined by the individual course instructor.

Course Policies
1. Cheating of any kind will <u>not</u> be tolerated.

2. Additional class policies as defined by the individual course instructor.

TECHNICAL REQUIREMENTS
The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at https://lit.edu/online-learning/online-learning-minimum-computer-requirements. 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 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building. You may also visit the online resource at http://www.lit.edu/depts/stuserv/special/defaults.aspx

Week	Assignment	Due Date
Aug 25 – 29	Course Introduction and policies. TMTH 0214 Review Topics: Module 1	(all assignments due by 11:59pm)
Sept 1 – 5	TMTH 0214 Review Topics: Module 4	
Sept 8 – 12	TMTH 0214 Review Topics: Module 7	
Sept.15 – 19	TMTH 0214 Review Topics: Module 8	All TMTH 0214 Assignments due
Sept. 22 – 26	Test 1 1.1 Linear Equations 1.2 Quadratic Equations 1.3 Complex numbers	
Sept. 29 – Oct. 3	1.4 Radical Equations; Equations Quadratic in Form 1.5 Solving Inequalities 1.6 Equations and Inequalities Involving Absolute Value	
Oct. 6 – 10	**Test 2** 2.1 Distance and Midpoint Formulas 2.2 Graphs of Equations in Two Variables 2.3 Lines	All Chapter 1 Assignments due
Oct. 13 – 17	3.1 Functions 3.2 Graph of a Functions 3.3 Properties of Functions	
Oct. 20 – 24	3.4 Libraries of Functions; Piecewise-Defined Functions 3.5 Graphing Techniques **Chapter 2/3 Test** 4.1 Linear Functions and Their Properties	All Chapter 2 and 3 Assignments due
Oct. 27 – 31	4.3 Quadratic Functions and Their Properties 5.1 Polynomial Functions and Models 5.5 Real Zeros of Polynomial Functions	
Nov. 3 – 7	5.6 Fundamental Theorem of Algebra 5.7 Complex Zeros **Chapter 4/5 Test**	
Nov. 10 – 14	6.1 Composite Functions 6.2 One-to-One Functions; Inverse Functions	All Chapter 4 and 5 Assignments due
Nov. 17 – 21	6.3 Exponential Functions 6.4 Logarithmic Functions 6.5 Properties of Logarithmic Functions	
Nov. 24 – 25	6.6 Logarithmic and Exponential Equations 6.7 Applications 8.2 Systems of Linear Equations; Matrices	
Nov. 26 – 28	**THANKSGIVING BREAK**	
Dec 1 – 5	**Chapter 6/8 Test**	All Ch 6 & 8 Assignments due
Dec 8	**Final Exam Due**	

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 or obtained in print upon request at the Student Services Office. 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.

Instructor Expectations from Students:
➢ Response to email/remind text within 24 hours (same day if received before 5pm M-Th or before noon Friday)
➢ Flexible office hours / virtual help when needed.
➢ Weekly grade updates

Professor Expectations of Students:
➢ Seek help from instructor early and often, do not wait until the last minute!
➢ Plan ahead; if you will miss an exam, make prior arrangements to take it early or schedule a make-up date at instructors' convenience
➢ When sending emails identify yourself with class and section
➢ Participate in class lecture/discussions.