Intermediate Algebra (TMTH 375 – 1A1)

INSTRUCTOR CONTACT INFORMATION

Instructor: Bradd Henry

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Office Phone: (409) 247-4924

Office Location: Technology Center building, room 236

Office Hours: Monday: 8:30-9:00 am, 10:00-11:00 am, 12:00-12:30 pm, 4:45-5:15 pm
      Tuesday: 8:30-9:30 am, 3:30-4:00 pm
      Wednesday: 8:30-9:00 am, 10:00-11:00 am, 4:45-5:15 pm
      Thursday: 8:30-9:30 am, 11:00-11:30 am, 1:30-2:00 pm, 4:30-5:00 pm
      Friday: 8:30-9:00 am, 10:00-11:00 am

CREDIT : 3 Semester Credit Hours (3 hours lecture)

MODE OF INSTRUCTION : Face to Face

PREREQUISITE/CO-REQUISITE:
Must be co-enrolled in TMTH 0165 BASE NCBO (Algebra).
TMTH 0165 is the co-requisite to TMTH 375.
All students enrolled in TMTH 375-1A1 must be enrolled in TMTH 165-1A1.

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

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

REQUIRED TEXTBOOK AND MATERIALS
1. MyMathLab access code.
2. Basic 6 function calculator recommended. No graphing calculators.
   Phone calculators are **not** allowed during tests.

ATTENDANCE POLICY
You will be required to sign a sign-in sheet at the beginning of each class period. **If you do not sign in, you will be marked absent.** If you are more than 15 minutes late for class, you will be marked absent and will not be allowed to sign in. A roll call may be given at the end of the class period to ensure accuracy of the sign-in sheet.

In this class, attendance will count as part of your grade. Your attendance grade will be based on the percentage of days you attend. If you arrive on time, remain in class until the class is dismissed by the instructor, and actively participate during the class period (e.g., taking notes, taking tests, or completing any other activity assigned by the instructor), you will earn 100 points for that day. Students who miss class, sleep in class, social network or text in class, or do not take notes or exams will receive a grade of 0 for the day. Absences due to a valid reason such as an illness or emergency will be excused only if the student provides written documentation. *Exception: Medical or dental appointments that coincide with the class period will not be excused*.

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

STUDENT EXPECTED TIME REQUIREMENT
For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students should prepare to allocate approximately six to nine hours per week outside of class in a 16-week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.

COURSE CALENDAR

DATE	TOPIC	READINGS (Due on this Date)	ASSIGNMENTS (Due on this Date)
Week 1	Introduction and policies; <u>Module 1</u> parts 1-2 Review operations with the Real numbers, basics of absolute value and inequalities.		
Week 2	<u>Module 1</u> parts 1-8 Solve equations and simplify expressions. Operations with polynomials. Evaluating polynomials.	Module 1 parts 1-8 notes and practice homework worksheets completed by Sunday, Aug 27, 2023	

Approved: Initials/date

Week 3	<u>Module 2</u> parts 1-9 Solving linear equations and inequalities. Using interval notation. Solving equations involving absolute value. Solve and graph inequalities involving absolute value.	Module 2 parts 1-9 notes and practice homework worksheets completed by Sunday, Sept 3, 2023	
Week 4	<u>Module 3</u> parts 1-8 Discuss rules of exponents, evaluating polynomials, operations with polynomials.	Module 3 parts 1-8 notes and practice homework worksheets completed by Tuesday, Sept 12, 2023	MyMathLab Modules 1, 2, and 3 Thursday, Sept 14, 2023
Week 5	<u>Module 3</u> parts 9-11 Division of polynomials by monomials, division by binomials (synthetic division)	Module 3 parts 9-11 notes and practice homework worksheets completed by Wednesday, Sept 13, 2023	Test 1 Modules 1, 2, and 3 Friday, Sept 15, 2023
Week 6	<u>Module 4</u> parts 1-5 Factor out the GCF, factor by grouping, factoring trinomials and binomials, factoring using the A-C method.	Module 4 parts 1–5 notes and practice homework worksheets completed by Thursday, Sept 28, 2023	
Week 7	<u>Module 5</u> parts 1–4 Simplify rational expressions. Multiply and divide rational expressions.	Module 5 parts 1–4 notes and practice homework worksheets completed by Tuesday, Oct 12, 2023	MyMathLab Modules 4 and 5 Thursday, Oct 12, 2023
Week 8	Review for Test 2. Review for all re-tests.		Test 2 Modules 4 and 5 Thursday, Oct 5, 2023
Week 9	<u>Module 5</u> parts 5–10 Add and subtract rational expressions. Solve rational equations with real-world applications.	Module 5 parts 5-10 notes and practice homework worksheets completed by Sunday, Oct 22, 2023	

Week 10	Module 6 parts 1–6 Introduction to radical expressions, simplifying radical expressions, and operations with radical expressions.	Module 6 parts 1-6 notes and practice homework worksheets completed by Friday, Oct 27, 2023	MyMathLab Modules 5 and 6 Thursday, Nov 2, 2023
Week 11	Module 6 parts 7–9 Multiply radical expressions. Rationalize fractions with radicals in the denominator. Solve one-radical equations. Review for Test 3	Module 6 parts 7-9 notes and practice homework worksheets completed by Tuesday, Oct 31, 2023	Test 3 Modules 5 and 6 Thursday, Oct 26, 2023
Week 12	Module 7 parts 1–3 Operations with complex numbers. Rationalize fractions with complex numbers in the denominator.	Module 7 parts 1-3 notes and practice homework worksheets completed by Sunday, Nov 12, 2023	
Week 13	Module 8 parts 1–2 Solve quadratic equations by various methods including factoring and the principle of square roots.	Module 8 parts 1-2 notes and practice homework worksheets completed by Friday, Nov 17, 2023	MyMathLab Modules 7 and 8 Tuesday, Nov 21, 2023
a Week 14	Module 8 part 4 Using the Quadratic Formula. Review for Test 3	Module 8 part 4 notes and practice homework worksheets completed by Sunday, Nov 19, 2023	Test 4 Modules 7 and 8 Thursday, Nov 16, 2023
Week 15	review for Final Exam	Thursday, Nov 16, 2023	
Week 16	Final Exam	in class	Final Exam 2:00 – 3:30 pm Tuesday, Dec 5

COURSE EVALUATION
Final grades will be calculated according to the following criteria:
- Average of 4 tests: 60%
- Comprehensive Final Exam: 10%
- Course Assignments (MyMathLab): 20%
- Attendance: 10%

GRADE SCALE
- 90-100   DA
- 80-89   DB
- 70-79   DC
- 0-69   DF

LIT does not use +/- grading scales

ACADEMIC DISHONESTY
Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty.

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 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.

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

1. A final grade of Incomplete will only be given if a student is passing the course and is missing only one major assignment such as the final exam. Such an arrangement must be made with the instructor. An incomplete assignment must be finished during the next long semester or a grade of "I" will become an "F."
2. No food, drinks, or use of tobacco products in class.
3. Laptops, telephones, and any other electronic devices must be turned off during class.