Developmental Mathematics (TMTH 374 – 3B1)

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 0174 BASE NCBO (Mathematics).
TMTH 0174 is the co-requisite to TMTH 374.
All students enrolled in TMTH 374-3B1 must be enrolled in TMTH 174-3B1.

COURSE DESCRIPTION
The course supports students in developing skills, strategies, and reasoning needed to succeed in mathematics, including communication and appropriate use of technology. Topics include the study of numeracy and the real number system; algebraic concepts, notation, and reasoning, quantitative relationships; mathematical models; and problem solving.

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

1. Use appropriate symbolic notation and vocabulary to communicate, interpret, and explain mathematical concepts.
2. Define, represent, and perform operations on real numbers, applying numeric reasoning to investigate and describe quantitative relationships and solve real world problems in a variety of contexts.
3. Use algebraic reasoning to solve problems that require ratios, rates, percentages, and proportions in a variety of contexts using multiple representations.
4. Apply algebraic reasoning to manipulate expressions and equations to solve real world problems.
5. Use graphs, tables, and technology to analyze, interpret, and compare data sets.
6. Construct and use mathematics models in verbal, algebraic, graphical and tabular form to solve problems in a variety of contexts and to make predictions and decisions

Approved: Initials/date

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; Chapter 2 Set Theory Discuss symbols and terminology of set theory. Topics include the Cardinal number, subsets, unions and intersections of sets.		
Week 2	Introduce and construct Venn diagrams. Use Venn diagrams to analyze date.	Sections 2.1 – 2.4 notes and practice homework worksheets completed by Friday, Sept 1, 2023	

Week	Topic	Worksheets	MyMathLab / Tests
Week 3	Chapter 3 <u>Logic</u> identify and use statements, use symbols to express compound statements, discuss negations find truth values of simple statements		MyMathLab Sections 2.1 - 2.4 Sunday, Sept 3, 2023
Week 4	Find truth values of compound statements and construct truth tables. Review for Test 1.	Sections 3.1 – 3.3 notes and practice homework worksheets completed by Monday, Sept 11, 2023	MyMathLab Sections 3.1 - 3.3 Sunday, Sept 10, 2023 Test 1 chapters 2 and 3 Thursday, Sept 14, 2023
Week 5	Chapter 5 <u>Number Theory</u> Introduce divisibility rules, and prime numbers. Use prime numbers to find greatest common factor and least common multiple	Sections 5.1 – 5.4 notes and practice homework worksheets completed by Friday, Sept 22, 2023	
Week 6	Chapter 6 <u>Real Numbers</u> basic operations with integers, rounding, order of operations, operations with fractions and mixed numbers.		MyMathLab Sections 5.1 , 5.4 Sunday, Sept 24, 2023
Week 7	Convert between fractions and decimals, understand percentages. Use proportions to solve real world problems.	Sections 6.1 – 6.5 and 7.1 notes and practice homework worksheets completed by Monday, Oct 9, 2023	MyMathLab Sections 6.1 – 6.5 and section 7.1 Monday, Oct 9, 2023
Week 8	Review for Test 2. Review for all re-tests.		Test 2 Chapters 5, 6, and 7.1 Thursday, Oct 12, 2023
Week 9	Chapter 7 <u>Basics of Algebra</u> understand ratios and proportions, solve one-step algebraic equations	Section 7.3 notes and practice homework worksheets completed by Wed, Oct 18, 2023	MyMathLab Sections 7.3 Wednesday, Oct 18, 2023
Week 10	Ch. 10 <u>Counting Methods</u> Introduce the fundamental counting principle, factorials, permutations and combinations	Sections 10.2 - 10.3 notes and practice homework worksheets completed by Friday, Oct 20, 2023	MyMathLab Sections 10.2 - 10.3 Monday, Oct 23, 2023

Week 11	Chapter 11 Probability the basics of probabilities and odds, conditional probability, probability of more than one event	Sections 11.1 - 11.2 notes and practice homework worksheets completed by Wed, Oct 25, 2023	
Week 12	Using probability to predict outcomes in real-world problems. Review for Test 3	Section 11.3 notes and practice homework worksheets completed by Monday, Oct 30, 2023	MyMathLab Sections 11.1 - 11.3 Monday, Oct 30, 2023 Test 3 Chapters 7.3, 10, and 11 Thursday, Nov 2, 2023
Week 13	Chapter 12 Statistics visual displays of data, bar graphs, line graphs, circle graphs, find measures of central tendancy (mean, median, and mode)	Sections 12.1 - 12.2 notes and practice homework worksheets completed by Wednesday, Nov 8, 2023	MyMathLab Sections 12.1, 12.2 Wed, Nov 8, 2023
Week 14	Ch 13 Personal Financial Management the time value of money, simple interest, calculate future value of money using simple interest, consumer credit	Sections 13.1 - 13.2 notes and practice homework worksheets completed by Wednesday, Nov 15, 2023	MyMathLab Sections 13.1, 13.2 Wed, Nov 15, 2023 Test 4 chapters 12 and 13 Tuesday, Nov 21, 2023
Week 15	review for Final Exam		Tues, Nov 28, 2023
Week 16	Final Exam	in class	Final Exam 9:00 – 11:00 am 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.