

Developmental Mathematics (TMTH 0374/TMTH 0174)

CREDIT

3 Semester Credit Hours (3 hours lecture, 1 hour lab)

MODE OF INSTRUCTION

Online

PREREQUISITE/CO-REQUISITE:

Must be co-enrolled in TMTH 0174 BASE NCBO (Mathematics).

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.

INSTRUCTOR CONTACT INFORMATION

Instructor: Widad Abedelwahab

Email: whabedelwahab@lit.edu

Office Phone: 409-241-7873

Office Location: TA5 106

Office Hours: Monday: 9:00 am – 12:00 pm

Tuesday: 9:00 am – 9:30 am

Approved: Initials/date



12:30 pm – 1:00 pm

Wednesday: 9:00 am – 12:00 pm

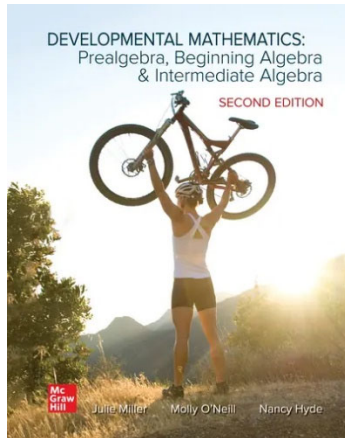
Thursday: 9:00 am – 9:30 am

1:30 pm – 2:00 pm

Friday: 8:00 am – 10:00 am

Virtual office hours by appointment. During the semester I will be creating virtual meetings (optional).

REQUIRED TEXTBOOK AND MATERIALS



ALEKS Developmental Mathematics. *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:

Approved recommended calculators by individual course instructor.

ATTENDANCE POLICY

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

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

Assignment Schedule (subject to change with or without notice)

Week of	Homework Assignments	ALEKS
	Course syllabus	
	Orientation	
	Section 1.1: Introduction to Whole Numbers	
	Section 1.2: Addition and Subtraction of Whole Numbers and Perimeter	
	Section 1.3: Rounding and estimating	

	Section 1.4: Multiplication of Whole Numbers and Area	
	Section 1.5: Division of Whole Numbers	
	Section 1.6: Exponents, Algebraic Expressions, and the Order of Operations.	
	Section 1.7: Mixed Applications and Computing Mean	
	Section 2.1: Integers, Absolute Value, and Opposite	
	Section 2.2: Addition of Integers	
	Section 2.3: Subtraction of Integers	
	Section 2.4: Multiplication and Division of Integers	
	Section 2.5: Order of Operations and Algebraic Expressions	
	Section 3.1: Simplifying Expressions and Combining Like Terms	
	Section 3.2: Addition and Subtraction Properties of Equality	
	Section 3.3: Multiplication and Division Properties of Equality	
	Section 3.4: Solving Equations with Multiple Steps	
	Section 3.5: Applications and Problem Solving	
	Section 4.1: Introduction to Fractions and Mixed Numbers	
	Section 4.2: Simplifying Fractions	
	Section 4.3: Multiplication and Division of Fractions	
	Section 4.4: Least Common Multiple and Equivalent Fractions	
	Section 4.5: Addition and Subtraction of Fractions	
	Section 4.6: Estimation and Operations on Mixed Numbers	
	Section 4.7: Order of Operations	
	Section 4.8: Solving Equations Containing Fractions	
	Section 5.1: Decimal Notation and Rounding	
	Section 5.5: Fractions, Decimals and the Order of Operations	
	Section 5.6: Solving Equations Containing Decimals	
	Section 6.1: Ratio	
	Section 6.2: Rates and Unit cost	
	Section 6.3: Proportions	
	Section 6.4: Applications of Proportions and Similar Figures	
	Section 7.1: Percents, Fractions and Decimals	
	Section 7.2: Percent Proportion and Applications	
	Section 7.3: Percent Equations and Applications	
	Section 7.4: Applications of Sales Tax, Commission, Discount, Markup and percent Increase and Decrease.	
	Section 7.5: Simple Interest	

	Section 9.1: Tables, Bar Graphs, Pictographs and Line Graphs	
	Section 9.2: Frequency Distributions and Histograms	
	Section 9.3: Circle Graph	
	Section 9.4: Introduction to Probability	
	Section 9.5: Mean, Median and Mode	
	Review/Make-up	
	Final Exam	

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

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Test	60%
Course Assignments	20%
Final Exam	20%

GRADE SCALE

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

LIT does not use +/- grading scales

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. 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.

[More Information on Blackboard](#)