

MATH 125 - ALGEBRA FOR THE MANAGEMENT AND SOCIAL SCIENCES

Section: 001

Spring Quarter 2022

Classroom: BOGH 304

INSTRUCTOR: Dr. Charles Patterson

Office: BOGH 217A

Phone: 257-3224

Office Hours: 2:00-5:00 MW / 11:00-12:00 & 2:00-5:00 TR / Friday by Appointment Only

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MyMathLab Course ID:

COURSE PREREQUISITES: Math 101 (or 100) or Math 102 (or 103), or placement by exam, or a Math ACT score greater than or equal to 26, or a Math SAT score greater than or equal to 610 (590 prior to March 2016).

COURSE GOALS: The instructor will present and test a subset of these topics: linear and quadratic equations and functions, graphs, matrices, systems of linear equations, mathematics of finance, sets, probability and statistics, exponential and logarithmic functions.

TEXTBOOK AND RESOURCE MATERIALS: *Finite Mathematics with Applications* (12th edition) by Lial/Hungerford/Holcomb packaged with MyMathLab. The use of MyMathLab is mandatory. A scientific calculator (TI-30X II only) may be used in this course, but the use of graphing calculators is prohibited. Students will need to purchase a 2" binder, dividers, and loose-leaf paper. A portion of the course may be delivered via zoom, and thus a webcam is required. If you do not have a webcam, one may be checked out from Prescott Memorial Library. A scanner or an app with scanning capabilities will also be required to upload exams in the event that exams must be administered electronically.

ATTENDANCE REGULATIONS: Read the "Class Attendance" section of the Tech Bulletin which says in part that "Class attendance is . . . an obligation . . . and all students are expected to attend regularly and PUNCTUALLY." A student, who is not present when roll is checked or who leaves before class is dismissed, will be considered absent for the day. **A student who misses two consecutive class meetings, must contact me by the following class meeting to discuss the reason for absence and to notify me of his/her plans to remain enrolled in the class.** Excuses for absences must be submitted immediately. Students are required to wear a mask in class and will follow a seating chart made by the instructor. Respectfully pay attention for the entire period. ***Turn off and put away all cellular phones before entering the classroom. NO text messaging during class!!***

*If you are feeling ill, have COVID-19 symptoms, or have been exposed to COVID-19, DO NOT come to class in person. Contact your instructor in ADVANCE and Tech Care (318-257-4866). A student with approved documentation who follows appropriate university protocol will not be penalized for missing class and recordings of the lectures will be made available after class.

*In the case that the instructor becomes exposed to or contracts COVID-19, the class will continue using Zoom/Moodle as communicated by the instructor.

HOMEWORK/TEST POLICY: Homework will be obtained from student's progress with MyMathLab and any graded daily assignments. Assignments on MyMathLab will include homework exercises similar to the textbook problems. **Students are required to complete all homework assignments from the textbook and on MyMathLab.** Quizzes on MyMathLab may also be included as part of the homework grade. The instructor intends for tests to be administered in person in the classroom setting during the regularly scheduled class time. However, it is possible that examinations may have to be administered electronically. For electronic exams requiring the student to submit written work, a webcam, with video turned on, is **required**. If the webcam malfunctions, a makeup exam is required. Written exams will be scanned in via a scanner or an app, and uploaded as instructed. Only material in the original submission will be graded, resubmissions will not be accepted. Smart devices (phones, watches, glasses, etc.) are not to be visible during an exam. If such a device is visible at all during an exam, a student's exam will be taken immediately and will result in a zero test grade. Students will not be permitted to leave a room once a test begins. If you miss an exam, you must notify the instructor *prior* to the exam either in person, email, or by phone. When you return, it is your responsibility to arrange for a makeup exam. In the case of technical difficulties during an exam, the student must contact the instructor as soon as possible and schedule a makeup exam.

GRADE DETERMINATION PROCEDURE: The instructor will schedule 4 tests worth 100 points each and a 150 point optional comprehensive final. Homework will count at most 50 points and will consist of graded homework assignments submitted through MyMathLab and any daily graded assignments. This 50 point grade will be averaged with the four test grades and comprehensive final to determine a student's grade in the class. In the event of a question regarding an exam grade or final grade, it will be the responsibility of the student to retain and present graded materials which have been returned for student possession.

LATE HOMEWORK/MISSED EXAMS: Late homework will **not** be accepted. Make-ups will be allowed for exams only in the case of an excused absence (generally a doctor's excuse which I have called and verified or an official university excuse). You must contact me by the class meeting following a missed exam to discuss your reason for missing the exam and to determine the **possibility** of a make-up exam. Make-ups will be another exam or the comprehensive final exam as specified by me.

GRADE SCALE: 90-100% A, 80-89% B, 70-79% C, 60-69%D, 0-59% F

STUDENTS NEEDING SPECIAL ACCOMMODATIONS: Students needing testing accommodations or classroom accommodations based on a disability must discuss the need with me as soon as possible. For more details on the Office of Disability Services, refer to www.latech.edu/ods. Any issues with accessing technology, which are related to a disability, should be reported to the instructor as soon as possible. A student requesting an accommodation related to the COVID-19 pandemic should complete the [student accommodation form](#) and deliver it either in person or electronically. The preferable way to deliver the form is electronically to Testing and Disability Services (tds@latech.edu).

HONOR CODE AND ACADEMIC MISCONDUCT POLICY: In accordance with the Academic Honor Code, students pledge the following: Being a student of higher standards, I pledge to embody the principles of academic integrity. If it is determined that academic misconduct has occurred, the penalty may range from dismissal from the University to a failing grade in the course. For more details on the honor code, refer to <http://www.latech.edu/current-students/student-advancement-affairs/student-conduct-integrity>.

HAZING: In compliance with Acts 635, 637, and 640 of the 2018 Regular Session and Act 382 of the 2019 Regular Session of the Louisiana Legislature and the 2019 Board of Regents Uniform Policy on Hazing, the System reaffirms its policy that any form of hazing of any student enrolled at any institution of the System is prohibited. Violation of this Policy can result in both disciplinary action imposed by the organization and/or institution as well as criminal charges.

EMERGENCY NOTIFICATION SYSTEM (ENS): All Louisiana Tech students are strongly encouraged to enroll and update their contact information in the Emergency Notification System. It takes just a few seconds to ensure you're able to receive important text and voice alerts in the event of a campus emergency. For more information on the Emergency Notification System, please visit <http://www.latech.edu/current-students/student-advancement-affairs/university-police>. For emergency notifications, please visit <http://ert.latech.edu>.

ADDITIONAL COVID-19 INFORMATION:

- a. Students can access COVID-19-related information, guidelines, FAQs, and policies at Louisiana Tech's website: latech.edu/coronavirus
- b. Louisiana Tech's Return to Campus Plan is located at latech.edu/return-to-campus. Masks are required to be worn indoors on campus. Masks are required to be worn outdoors if six feet of physical distance cannot be maintained. Every member of the Tech Family will need to take personal responsibility for their behavior, which includes wearing masks, maintaining physical distancing, washing hands regularly, using proper sneeze and cough practices, helping maintain clean academic and office areas, and monitoring for symptoms of COVID-19
- c. The direct link to the reporting protocol for students is located at latech.edu/coronavirus/return-to-campus-plan/for-students/. Students can reach out to Stacy Gilbert, Dean of Student Services & Academic Support, at stacyc@latech.edu for help with accommodations and additional information.
- d. Failure to comply with the Safety Protocols listed in the [Back to Campus Fall 2020](#) booklet, latech.edu/documents/2020/07/covid-return-book.pdf/, specifically on pages 5-7 about masks and social distancing, could result in students being in violation of the Classroom Behavior Policy listed on page 125 of the [Student Handbook](#) latech.edu/documents/2018/09/student-handbook.pdf/.
- e. Information and contact numbers and sites for Louisiana Tech Counseling Services are located at: <https://www.latech.edu/current-students/student-advancement-affairs/counseling-services/>

MATH 125
Course Outline and Assignments

Section	Topic	Assignment
2.5	Polynomial and Rational Inequalities	3, 9, 17, 19, 29, 33, 35
3.1	Functions	11, 14, 15, 17, 19, 25, 28, 34, 35, 37
3.2	Graphs of Functions	3, 5, 9, 13, 37a
3.3	Applications of Linear Functions	1, 5, 7, 17, 33a, 35, 37, 39, 45-48 (all), 51bc
3.4	Quadratic Functions and Applications	5, 7, 21, 23, 26, 31, 32, 35, 37, 39
4.1	Exponential Functions	1-6 (all), 13, 15, 17, 19abc, 35, 45
4.2	Applications of Exponential Functions	2, 3, 5, 7, 13
4.3	Logarithmic Functions	1-41 (odd), 47, 49, 53, 54, 55
4.4	Logarithmic and Exponential Equations	1-15 (odd), 23-39 (odd), 54
5.1	Simple Interest and Discount	3, 7, 9, 17, 19, 23, 25, 37, 40, 45
5.2	Compound Interest	7, 15, 31, 33, 36, 47, 48, 51, 52
5.3	Future Value of an Annuity & Sinking Funds	3, 7, 13, 17, 37, 43, 49
5.4	Present Value of an Annuity & Amortization	3, 5, 13, 17, 21, 29-32 (all), 38, 40, 44abc, 57
6.4	Basic Matrix Operations	1-8 (all), 9-21 (odd)
6.1	The Gauss-Jordan Method (2 x 2)	7, 8, 11 (Use Gauss-Jordan Method)
6.2	The Gauss-Jordan Method (3 x 3)	43, 45, 47
6.5	Matrix Products and Inverses	1-7 (odd), 9, 11, 15, 17, 27, 29, 33, 35, 37
8.1	Sets	1-9 (odd), 13-47 (odd)
8.2	Applications of Venn Diagrams	1-7 (odd), 8, 11, 13, 15, 20, 21, 24
8.3	Introduction to Probability	3-7 (odd), 12-17 (all), 19-23 (odd), 25-28 (all), 31-35 (odd)
8.4	Basic Concepts of Probability	9, 11, 17, 19, 21-27 (odd), 60
9.2	Multiplication Principle, Permutations, and Combinations	1, 3, 4, 5, 7, 9, 25, 27, 28, 30, 38, 41, 43, 48, 49, 50, 55, 57, 59, 65, 69
10.1	Frequency Distributions & Stem-and-Leaf Plots	1, 11
10.2	Measures of Central Tendency	1, 3, 5, 7, 9, 10-14 (all), 15, 17, 22, 25
10.3	Measures of Variation	3, 5, 7, 11, 19, 21, 25
10.4	Normal Distribution	5-13 (odd), 27-37 (odd)

NOTE:

(all) - *all problems*

(odd) - *odd numbered problems*