

**MATH 099 Preparation for College Mathematics  
Winter Quarter 2010-11**

**Instructor: Dr. Charles Patterson**

**Section: 002**

**Classroom: GTM 321**

**Office Number: GTM 332**

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**Office Hours: 1:00-4:00 M / 1:00-3:00 & 4:00-5:00 TR / 1:00-5:00 W / 11:00-1:00 F / Others by Appointment**

**ALEKS Course Code: NKXGK-LTCEQ**

**Website: [www.latech.edu/~charlesp](http://www.latech.edu/~charlesp)**

**COURSE PREREQUISITES:** Knowledge and ability to apply arithmetic properties of integers and rational numbers. Math 099, developmental math, is required before enrolling in any other math or statistics course at Louisiana Tech if Math ACT score is less than 19 or Math SAT is less than 460 unless a passing score is achieved on Placement Exam A or college credit has been earned for a math course equivalent to Math 099 or higher.

**COURSE GOALS:** To study mathematical concepts to prepare students for College Mathematics. Topics covered include arithmetic operations with real numbers, algebra fundamentals through operations with polynomials, rational expressions, solving linear equations, solving quadratic equations by factoring, solving inequalities, and simplifying radicals.

**TEXTBOOK AND RESOURCE MATERIALS:** Math 099 Preparation for College Mathematics Louisiana Tech University, by Dugopolski, packaged with ALEKS. ALEKS web-based tutorial is mandatory. Refer to the supplemental material and the ALEKS User's Guide for assistance with registering with ALEKS.

**ATTENDANCE REGULATIONS:** Class attendance will be mandatory. Any student who is not present when roll is checked or who leaves before class is dismissed, will be considered absent for the day. On the fourth unexcused absence the student will automatically be given a grade of F in the course. **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 within three class days after return to class and/or school. Respectfully pay attention for the entire period. *Turn off and put away all cellular phones before entering the classroom. No text messaging during class! No other electronic devices are to be used during class.*

**HOMEWORK POLICY:** Homework will be obtained from student's progress with the ALEKS tutorial, ALEKS quizzes, and any graded daily assignments. ALEKS tutorial grade will be based on hours used (minimum of 3 hours/week), percent mastered, and ALEKS quizzes. These will be worth a total of no more than 50 points. **NO WORK -- NO CREDIT!!**

**EXAMINATIONS:** Four 100 point tests and a 200 point comprehensive final exam (given the **last** class meeting).

**NO CALCULATORS WILL BE ALLOWED.**

**GRADE DETERMINATION PROCEDURE:** If a student has a grade of at least 60% on the comprehensive exam, then grades will be assigned as follows: the average of all exams and homework => S = 70 – 100%; NC = 0 – 69%.

If a student does not have a grade of at least 60% on the comprehensive exam, he/she will receive an NC and must repeat the course. **The only exception** to this system will be in the case of the F assigned for excessive absences and this F will appear on the student's grade report, permanent record, and all other reports. Withdrawal from Math 099 is not permitted. Students will be required to drop any regular courses before Math 099 is dropped. Please see the University Catalog, Developmental Education Program for additional information on this policy.

**LATE HOMEWORK/EXAMS MISSED:** No make-ups will be allowed for homework or in-class work. Make-ups will be allowed for exams only in the case of excused absence (generally a doctor's excuse which I have called and verified or an official university excuse). The student must contact me by the class meeting following a missed exam to discuss the reason for missing the exam and to determine the possibility of a makeup exam. Make-ups will be another exam or the comprehensive final exam as specified by me.

**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.

**RETENTION POLICY ON GRADED MATERIALS AND GRADE REPORTS:** 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 during the quarter.

**ACADEMIC MISCONDUCT POLICY:** Refer to the "Academic Misconduct" section of the Tech Catalog. 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/documents/honor-code.pdf>.

**MATH 099**  
**ASSIGNMENTS BY SECTION FROM TEXTBOOK**

SECTION	TOPIC	ASSIGNMENT NOTE: EOO MEANS EVERY OTHER ODD
Section 1.1	The Real Numbers	7 -23 odd; 27, 31, 35, 37-73 odd
Section 1.2	Sets	19 - 29 odd; 53 - 65 odd; 79 - 83 odd
Section 1.3	Fractions	7 – 101 odd
Section 1.4	Addition/Subtraction of Real Numbers	7 -93 odd
Section 1.5	Multiplication/ Division of Real Numbers	7 - 55 eoo; 57, 63 - 85 odd
Section 1.6	Exponential Exp./Order of Operations	7 – 115 eoo; 117
Section 1.7	Algebraic Expressions	7 – 35 eoo; 39 – 77 odd; 87, 89
Section 1.8	Properties of the real Numbers	25 – 65 eoo
Section 1.9	Using Properties to Simplify Expressions	7 - 103 eoo; 109
Chapter 1 Review	Review Exercises	15 – 151 eoo
Section 2.1	Addition/Multiplication Prop. of Equality	7 - 91 eoo; 94, 95
Section 2.2	Solving General Linear Equations	7 - 91 eoo; 93, 95, 97
Section 2.3	More Equations	7 - 47 odd; 49 - 65 eoo; 69 - 81 odd; 87
Section 2.4	Formulas	7 – 67 eoo; 75, 77, 85, 87, 89, 91, 93
Chapter 2 Review	Review Exercises	1 – 65 odd
Section 3.1	Translating Verbal Exp. into Algebraic Expressions	7 – 87 eoo
Section 3.2	Number/Geometric/Uniform Motion Applications	7 - 17 odd; 33-45 odd
Section 3.3	Discount, Investment, and Mixture Applications	15, 17, 19, 21, 23, 29, 31, 33, 35, 37, 39
Section 3.4	Inequalities	7 – 39 eoo; 41 – 49 odd; 51 – 63 eoo; 79
Section 3.5	Solving Inequalities and Applications	7 - 31 eoo; 33 -59 odd; 61, 67
Section 3.6	Graphing Lines in the Coordinate Plane	7 - 31 eoo; 33 – 57 odd; 61 -71 odd; 79, 81, 85, 87
Section 3.7	Slope	7 – 41 odd
Chapter 3 Review	Review Exercises	15 -47 odd; 57 – 77 odd
Section 4.1	Addition and Subtraction of Polynomials	7 - 31 odd; 35 -59 eoo; 63 – 85 odd; 87, 89, 91
Section 4.2	Multiplication of Polynomials	7 – 91 eoo; also 45
Section 4.3	Multiplication of Binomials	5 – 69 eoo; 71
Section 4.4	Special Products	7 – 75 eoo; 81
Section 4.5	Division of Polynomials	7 – 37 odd; 39 – 85 eoo
Section 4.6	Nonnegative Integral Exponents	7 -73 odd
Section 4.7	Negative Exponents/Scientific Notation	7 - 69 odd
Chapter 4 Review	Review Exercises	1 – 105 eoo; 115 – 141 eoo
Section 5.1	Factoring Out Common Factors	7 – 83 eoo; 85
Section 5.2	Factoring Special Products/Grouping	9 - 41 eoo; 45 - 87 odd
Section 5.3	Factoring Trinomials Part 1	15 – 59 eoo; 61 – 79 odd; 81,83
Section 5.4	Factoring Trinomials Part 2	9 - 89 eoo
Section 5.5	Factoring Difference/Sum of Two Cubes	7 – 85 odd
Section 5.6	Solving Quadratic Equations by Factoring	7 – 57 odd; 59, 61, 63, 65
Chapter 5 Review	Review Exercises	1-99 eoo
Section 6.1	Reducing Rational Expressions	7 - 19 odd; 23 - 95 eoo
Section 6.2	Multiplication and Division	5 - 57 eoo; 59 - 67 odd
Section 6.3	Finding the Least Common Denominator	27 – 57 eoo
Section 6.4	Addition and Subtraction	5 - 45 eoo; 47 – 65 odd
Section 6.5	Complex Fractions	3 - 39 odd
Section 6.6	Solving Eqns. with Rational Expressions	5 – 57 odd
Chapter 6 Review	Review Exercises	1-15 odd; 33-57 odd; 99-117 odd
Section 7.1	Roots, Radicals, And Rules	7 - 73 odd