MATH 101 COLLEGE ALGEBRA

Section: _____ _____ Quarter, 200__ Classroom: GTM _____

INSTRUCTOR: _____ Office: GTM _____ Phone: _____

Office Hours: _____

E-mail: _____ ALEKS Course Code: _____

COURSE PREREQUISITES: Math ACT score greater than or equal to 22, or Math SAT score greater than or equal to 520, or Placement by Exam

COURSE GOALS: The instructor will present and test a subset of these topics: rational exponents; radical expressions; complex numbers; miscellaneous equations; inequalities; functions; conics; graphs; inverse, exponential, logarithmic functions; applications; system of equations.

TEXTBOOK AND RESOURCE MATERIALS: College Algebra: Math 100/101 Louisiana Tech University (Copyright © 2007) packaged with ALEKS. ALEKS web-based tutorial is mandatory. Refer to the supplemental material provided and the ALEKS User's Guide for assistance with registering on ALEKS. ***Use of Graphing Calculators is prohibited!***

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." Excuses for absences must be submitted within three class days after return to class. Respectfully pay attention for the entire period. ***Please turn off all cellular phones and pagers before entering the classroom.***

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 per week), percent mastered, and scores from quizzes on ALEKS. NO WORK -- NO CREDIT!!!

GRADE DETERMINATION PROCEDURE: The instructor will schedule 3 tests worth 100 points each and a 150 point comprehensive final. Homework will count at most 50 points. *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.*

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

LATE HOMEWORK/MISSED EXAMS: No make-ups will be allowed for homework or in-class work. 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). 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 make-up 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.

HONOR CODE AND 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/tech/students/honor-code.pdf.

MATH 101
Course Outline and Assignments

Section	***Topic***	***Assignment***
1.4	Inequalities	7-59 (eoo), 61
1.5	Compound Inequalities	1-17 (eoo), 19-41 (odd), 43-71 (eoo), 73
1.6	Absolute Value Equations & Inequalities	1-33 (eoo), 37-65 (odd), 69, 73, 77
2.1	Midpoint and Distance Formulas	21-27 (odd)
2.2	Slope of a Line	7-35 (odd)
2.3	Three Forms for the Equation of a Line	7-19 (eoo), 21, 23-71 (eoo), 83-89 (odd) Pg. 75: # 35, 39, 43, 49, 55
3.1	Solving 2x2 Systems by Graphing/Subst.	25-49 (eoo), 53-59 (odd)
3.2	Solving 2 x 2 Systems by Addition	7-43 (eoo), 59,61,63
3.3	Solving 3 x 3 Systems of Equations	7, 11, 13, 17, 21, 23
5.3	Complex Fractions	3-51 (eoo)
5.4	Solve Equations w/ Rational Expressions	9-17 (eoo), 19, 21-61 (eoo), 65-71 (odd)
1.3	Applications	17-25 (odd),33,34,37-40 (all)
5.5	Applications	1-21 (odd), 35-45 (odd)
6.1	Radicals	7-99 (eoo)
6.2	Rational Exponents	7-111 (eoo)
6.3	Operations with Radicals	5-105 (eoo)
6.4	Quotients, Powers, Rationalizing Denominator	1-95 (odd)
6.5	Solve Equations w/ Radicals & Exponent	5-41 (eoo),43,45-81 (eoo),83,85-97 (eoo)
6.6	Complex Numbers	7-47 (eoo), 49, 51-99 (eoo)
7.1	Factoring & Completing the Square	1-23 (odd), 41-93 (odd)
7.2	Quadratic Formula	7-63 (eoo)
7.3	More on Quadratic Equations	1-29 (eoo), 31-47 (odd)
7.4	Graphing Parabolas , $f(x) = ax^2 + bx + c$	11-25 (odd)
7.5	Graphing Parabolas, $f(x) = a(x-h)^2 + k$	17, 19, 39-47 (odd), 55, 57 [Omit focus/directrix]
8.1	Functions and Relations	15-27 (odd), 57-67 (odd), 69-89 (eoo), 94-99 (all)
8.2	Piecewise-Defined Functions	1-11 (odd)
8.3	Domain of Rational Expressions/Functions	3-19 (odd)
8.4	Graphs of Functions & Relations	17-25 (odd), 28, 33-39 (odd), 55
8.5	Combining Functions	5-15 (odd), 17-45 (eoo)
8.6	Inverse Functions	9-27 (odd), 29-37 (eoo), 39, 41-53 (eoo)
9.1	Exponential Functions	7-27 (eoo), 29, 31-39 (eoo), 45-69 (odd)
9.2	Logarithmic Functions	7-39 (odd), 41-44 (all), 45-69 (odd)
9.3	Properties of Logarithms	7-95 (eoo)
9.4	Solving Logarithmic / Exponential Eqns.	3-35 (odd), 45-57 (odd)
10.1	Circles	3,5,7,9,13,17,21,23,27,33,35,39
10.2	Ellipses and Hyperbolas	9, 13, 17, 23, 25, 29, 37, 38

NOTE: *eoo – every other odd*

MATH 100
Course Outline and Assignments

Section	***Topic***	***Assignment***
1.1	*Linear Equations in One Variable*	*1-93 (eoo)*
1.2	*Formulas*	*7-35 (odd), 43, 47, 53-81 (eoo)*
1.3	Applications	17-25 (odd),33,34,37-40 (all)
1.4	Inequalities	7-59 (eoo), 61
1.5	Compound Inequalities	1-17 (eoo), 19-41 (odd), 43-71 (eoo), 73
1.6	Absolute Value Equations & Inequalities	1-33 (eoo), 37-65 (odd), 69, 73, 77
2.1	Midpoint and Distance Formulas	21-27 (odd)
2.2	Slope of a Line	7-35 (odd)
2.3	Three Forms for the Equation of a Line	7-19 (eoo), 21, 23-71 (eoo), 83-89 (odd) Pg. 75: # 35, 39, 43, 49, 55
3.1	Solving 2x2 Systems by Graphing/Subst.	25-49 (eoo), 53-59 (odd)
3.2	Solving 2 x 2 Systems by Addition	7-43 (eoo), 59,61,63
3.3	Solving 3 x 3 Systems of Equations	7, 11, 13, 17, 21, 23
4.1	*Integral Exponents & Scientific Notation*	*7-95 (eoo)*
4.2	*Power Rules*	*7-73 (odd)*
4.5	*Factoring Strategy*	*5-91 (odd) -- OMIT # 39, 41, 43*
4.6	*Solving Equations by Factoring*	*7-59 (eoo), 71, 75*
5.1	*Multiplication/Division of Rational Exp.*	*5-33 (odd), 53-59 (odd), 67-79 (odd)*
5.2	*Add/Subtract Rational Expressions*	*7-15 (odd), 33-57 (eoo), 77-93 (eoo)*
5.3	Complex Fractions	3-51 (eoo)
5.4	Solve Equations w/ Rational Expressions	9-17 (eoo), 19, 21-61 (eoo), 65-71 (odd)
5.5	Applications	1-21 (odd), 35-45 (odd)
6.1	Radicals	7-99 (eoo)
6.2	Rational Exponents	7-111 (eoo)
6.3	Operations with Radicals	5-105 (eoo)
6.4	Quotients, Powers, Rationalizing Denominator	1-95 (odd)
6.5	Solve Equations w/ Radicals & Exponent	5-41 (eoo),43,45-81 (eoo),83,85-97 (eoo)
6.6	Complex Numbers	7-47 (eoo), 49, 51-99 (eoo)
7.1	Factoring & Completing the Square	1-23 (odd), 41-93 (odd)
7.2	Quadratic Formula	7-63 (eoo)
7.3	More on Quadratic Equations	1-29 (eoo), 31-47 (odd)
7.4	Graphing Parabolas , $f(x) = ax^2 + bx + c$	11-25 (odd)
7.5	Graphing Parabolas, $f(x) = a(x-h)^2 + k$	17, 19, 39-47 (odd), 55, 57 [Omit focus/directrix]
8.1	Functions and Relations	15-27 (odd), 57-67 (odd), 69-89 (eoo), 94-99 (all)
8.2	Piecewise-Defined Functions	1-11 (odd)
8.3	Domain of Rational Expressions/Functions	3-19 (odd)
8.4	Graphs of Functions & Relations	17-25 (odd), 28, 33-39 (odd), 55
8.5	Combining Functions	5-15 (odd), 17-45 (eoo)
8.6	Inverse Functions	9-27 (odd), 29-37 (eoo), 39, 41-53 (eoo)
9.1	Exponential Functions	7-27 (eoo), 29, 31-39 (eoo), 45-69 (odd)
9.2	Logarithmic Functions	7-39 (odd), 41-44 (all), 45-69 (odd)
9.3	Properties of Logarithms	7-95 (eoo)
9.4	Solving Logarithmic / Exponential Eqns.	3-35 (odd), 45-57 (odd)
10.1	Circles	3,5,7,9,13,17,21,23,27,33,35,39
10.2	Ellipses and Hyperbolas	9, 13, 17, 23, 25, 29, 37, 38

NOTE: *Sections in italics are considered review material.* *eoo – every other odd*