LINCOLN UNIVERSITY

Course Title:	College Mathematics	**Instructor:**	Prof. Serge Ruiz
Course No:	MATH 10	**Phone:**	949-232-3323
Units:	3 units (= 45 lecture hours)	**E-mail:**	sruiz@lincolnuca.edu
Class Hours:	Mondays & Wednesdays at 12:30 pm – 3:15 pm	**Office Hours:**	Wednesdays at 11:30 am – 12:30 pm
Semester:	Summer 2013	**Office Number:**	Room 407

REQUIRED MATERIALS:

Textbook: College Algebra, by Michael Sullivan, Pearson, 9th Edition, 2011, ISBN-10:0321716817

Required Tools: Microsoft Excel Spreadsheets

Optional: A scientific calculator

COURSE DESCRIPTION:

Elementary Algebra: fundamental algebraic concepts and operations, number bases, linear equations and inequalities, functions, graphing, Intermediate Algebra: study of algebra including exponents and radical polynomials, geometric series, rational expressions, quadratic equations and logarithms (3 units)

LEARNING OBJECTIVES:

The students will review the basic concepts and techniques of elementary and intermediate algebra, get complete coverage of the function and graph concepts, and learn how to apply them. Particular emphasis will be placed on the practical use of mathematics in business and in economics. The goal is to introduce students to problem solving and mathematical modeling using algebra and to build a solid foundation in the principles of mathematical thinking.

INSTRUCTIONAL METHODS:

Lecture method is used in combination with the practical use of a calculator, business software, and the Internet resources to solve application problems. The emphasis will be on learning by doing. Every student must participate in an intensive classroom activity. Reading, writing, and problem solving assignments will be made weekly throughout the course.

OTHER REQUIREMENTS:

All students are required to attend the class. Continuous assessment is emphasized. Written or oral quizzes will be given every week. Students must complete all assignments and take all quizzes, mid-term exam and final exam ON THE DATES DUE. Talking in class, using cell phones, coming late, leaving the room at times other than at break time is not allowed. Plagiarism/cheating will result in the grade "F" and a report to the administration.

ASSIGNMENTS:

Most assignments will be from the textbook. Each assignment is due on the Wednesday of the next week after it is assigned.

TESTING:

Classroom activities	every week	10%
Quizzes	one impromptu quiz	10%
Assignments	every week	10%
Mid-term exam	as scheduled	30%
Final exam	as scheduled	40%

Students will be allowed to use computers during tests.

GRADING:

Grades will be determined according to the following percentages awarded for completed work:

- 85% – 100 %: A (or A-) range
- 75% – 84%: B (B+ to B-) range
- 65% – 74%: C (C+ to C-) range
- 55% – 64%: D
- Below 55%: F

COURSE SCHEDULE:

Weekly schedule of topics is attached. Students should read every chapter of the textbook on the topic to be discussed in class before they come to class. Be ready to answer in writing all review questions and to solve problems at the end of the chapter.

MODIFICATION OF THE SYLLABUS:

This syllabus was updated on January 8, 2013. The instructor reserves the right to modify this syllabus at any time during the semester. An announcement of any changes will be made in the classroom.

Summer 2013 SCHEDULE OF TOPICS

Please read every chapter of the textbook before you come to class

Class Session	Topics	Chapters
1	Real Numbers, Algebra Essentials, Geometry Essentials, Polynomials.	R1-R4
2	Factoring Polynomials. Rational Expressions. Nth Roots. Rational Exponents.	R5-R8
3	Linear Equations and Solving Inequalities	1
4	Distance and Midpoint Formulas; Graphs of Equations in Two Variables	2
5	Functions: The Graph of a Function	3
6	Graphing Techniques, Transformations; Mathematical Models: Building Function	3-4
7	**Review.**	R, 1 - 4
	MIDTERM EXAM	
8	Quadratic Equations and Their Properties	4
9	Polynomial Functions and Models. Properties of Rational Functions	5
10	Composite Functions. One-to-One Functions	6
11	Logarithmic Functions	6
12	Compound Interest, Exponential Growth and Decay; Newton's Law	6
13	Systems of Linear Equations, non-linear equations, arithmetic sequences and geometric sequences	8-9
14	**Review**	1-11

COMPREHENSIVE FINAL EXAM