

**Math 103A–2 College Algebra (Part I)** 4 Units **Fall 2012**

**Meeting Times:** Monday & Wednesday 6:00 – 7:50 PM **Meeting Place:** Room E106

**Instructor:** Charlie Lincoln

**Email:** [c.lincoln@sbcglobal.net](mailto:c.lincoln@sbcglobal.net)

**Cell Phone:** 545-9411

**Office Hours: By Appointment**

**Optional Text:** *Precalculus Enhanced With Graphing Utilities* 6e by Sullivan & Sullivan,  
*Check out the Solutions manual for this course before purchasing it to see if the book meets your needs.*

**MyLab Log-In:** (for [MyLab](#)/Mastering): **lincoln84574**

MyLab/Mastering is required for this course and a software license is required. You must have a valid e-mail address to use the on-line curriculum. Students have *two choices*. The *first choice* is to purchase the textbook from the bookstore. The textbook comes with the software license. Note: If you purchase a used textbook, it may not have a valid course access code. Be VERY careful when acquiring the text to make sure it is the correct edition. The *second choice* is to purchase the license alone either from the bookstore or online at [coursecompass.com](http://coursecompass.com). The license gives you access to the textbook online. This is a more economical choice, but is only recommended to students who have online access and feel comfortable reading a computer screen instead of a traditional book. To access our class page, go to [www.coursecompass.com](http://www.coursecompass.com) and register using your student access code and the course ID for this class: **lincoln84574**

For assistance with MyMathLab: You may get help by calling 1-800-677-6337 during the following hours: Mon – Fri 5:00 AM – 5:00 PM & Sunday 2:00 PM – 9:00 PM. Online assistance is available 24 hours every day at: [247pearsoned.custhelp.com](http://247pearsoned.custhelp.com)

**Course Description:** This course is an in-depth study of functions. We will study linear, quadratic and higher order polynomials, rational functions, zeros of polynomial functions and their theorems. We will analyze functions' algebraic and geometric properties. Special emphasis will be placed on application problems and the use of graphing calculators. I will be demonstrating on a Texas Instrument 89 (TI 89) graphing calculator. You may rent a TI-89 from the college with a deposit and fee per quarter. Please see me if you have any questions.

**Student Learning Outcomes:**

1. Produce and interpret graphs of functions and relations.
2. Apply techniques to solve polynomial and rational equations and inequalities.
3. Model real life situations using algebraic methods.
4. Simplify algebraic expressions using skills obtained in the course.

**Prerequisite:** A grade of "C" or better in Math 154, or equivalent or appropriate skills demonstrated through the Math Assessment process.

Students with disabilities must identify themselves to me within the first two weeks of class.

**Accommodations for Students with Disabilities:** Students requiring accommodations for a certain disability that may affect class performance are requested to schedule with a staff member at the

Disability Resource Center to discuss this during the first week of the quarter so that appropriate arrangements can be made.

**Grading:** Your class letter grade will be based on the usual grading scale:

**A:** 90% and above,   **B:** 80-89%,   **C:** 70-79%,   **D:** 60-69%,   **F:** 59% and under.

Homework	100 pts.
4 Quizzes	100 pts.
Midterm Exam 1	100 pts.
Midterm Exam 2	100 pts.
<u>Comprehensive Final Exam</u>	100 pts.
Total	500 pts

**Homework:** The homework assignments to be turned in for credit are due in class **every Wednesday**. You may complete the homework on line or in the book. The book assignments are found in the lecture schedule following each section. Each homework assignment is considered late if it is not turned in on the assigned date. If you will be absent, either turn in the homework assignment early or have someone turn in the homework assignment for you. Late homework receives **reduced credit**. Your work must support your answers. **Each homework section is worth 10 points.**

**Quizzes:** **There are no make-up quizzes.** There will be five quizzes but only four are counted so your lowest quiz score will automatically be dropped.

**Midterm Exams:** **You must notify me before** an exam if you will miss the exam. **You can call me, text me or e-mail me.** Exams must be made up within 3 school days after the scheduled date. You may take an exam up to 3 school days before the scheduled date. **Arrangements must be made with me in advance.**

**Please come see me if you do not understand these policies.**

In this class, it is your responsibility to drop the class in order to avoid an unwanted grade. You must go to Admissions & Records.

Friday, September 28<sup>th</sup> is the last day for refunds.

Friday, October 12<sup>th</sup> is the last day to drop with no record.

Friday, November 2<sup>nd</sup> is the last day to withdraw with a “W” grade.

## Tentative Lecture Schedule Math 103A – 2

<u>Date</u>	<u>Topic</u>	<u>Section</u>
Sept 17	Syllabus, Rectangular Coordinates, Graphing Utilities	1.1
	1.1 HW Pages 14 – 17. #16, 36, 43, 50, 58, 75, 79, 99, 105, 109. Intercepts, Symmetry, Graphing Key Equations	1.2
	1.2 HW Pages 24 – 25. #16, 24, 34, 39, 43, 50, 75. <b><u>HW 1 Sections 1.1 and 1.2 are due Wednesday, Sept 19.</u></b>	
Sept 19	Solving Equations using a Graphing Calculator	1.3
	1.3 HW Pages 28. #6, 8, 17, 22, 28, 34, 36.. Lines	1.4
	1.4 HW Pages 40 – 44. #12, 24, 26, 34, 42, 59, 86, 119.	
Sept 24	Circles	1.5
	1.5 HW Pages 49 – 51. #8, 10, 26, 34, 51. <b><u>HW 2 Sections 1.3, 1.4, 1.5 are due Wednesday, Sept 26.</u></b>	
Sept 26	<b>Quiz 1 (1.1 – 1.4)</b> Functions	2.1
	2.1 HW Pages 68 – 70. #30, 32, 33, 44, 45, 50, 59, 66, 76, 89.	
Oct 1	The Graph of a Function	2.2
	2.2 HW Pages 75 – 79. #12, 20, 24, 28, 32. Properties of Functions	2.3
	2.3 HW Pages 86 – 90. #21, 28, 34, 42, 45, 53. <b><u>HW 3 Sections 2.1, 2.2, 2.3 are due Wednesday, Oct 3.</u></b>	
Oct 3	<b>Quiz 2 (1.5 – 2.1)</b> Library of Functions, Piecewise-defined Functions	2.4
	2.4 HW Pages 97 – 99. #19, 25, 33, 41, 47. Graphing Techniques, Transformations	2.5
	2.5 HW Pages 108 – 112. #21, 24, 28, 30, 34, 37, 45, 79.	
Oct 8	Review Midterm Exam 1	
Oct 10	<b>Midterm Exam 1 (Chapter 1, Sections 2.1, 2.2, 2.3)</b>	
Oct 15	Mathematical Models: Building Functions	2.6
	2.6 HW Pages 116-117. # 1, 3, 7, 12, 22, 23, 25. <b><u>HW 4 Sections 2.4, 2.5, 2.6 are due Wednesday, Oct 17.</u></b>	
Oct 17	Linear Functions, Their Properties and Linear Models	3.1
	3.1 HW Pages 136 – 139. #5, 9, 15, 17, 21.	
Oct 22	Building Linear Models from Data	3.2
	3.2 HW Pages 143 – 146. #5, 9, 15, 17, 21. <b><u>HW 5 Sections 3.1, 3.2 are due Wednesday, Oct 24</u></b>	

<b>Oct 24</b>	<b>Quiz 3</b> (2.4 – 2.6, 3.1) Quadratic Functions and Their Properties 3.3 HW Pages 151-154. #16, 23,47, 55, 83.	3.3
Oct 29	Building Quadratic Models 3.4 HW Pages 164 – 168. #3, 7, 11, 13, 17, 26.	3.4
	Inequalities Involving Quadratic Functions 3.5 HW Pages 171-172. #3, 13, 19, 33, 35.	3.5
	<b><u>HW 6 Sections 3.3, 3.4, 3.5 are due Wednesday, Oct 31.</u></b>	
<b>Oct 31</b>	<b>Quiz 4</b> (3.2-3.4) Polynomial Functions and Models 4.1 HW Pages 193 – 197. #15, 18, 24, 31, 44, 55, 69, 70.	4.1
Nov 5	Real Zeros of a Polynomial Function 4.2 HW Pages 209 – 210. #8, 20, 39, 49, 59, 63, 65, 66.	4.2
	<b><u>HW 7 Section 4.1, 4.2, are due Wednesday, Nov 7.</u></b>	
Nov 7	Complex Zeros, Fundamental Theorem of Algebra 4.3 HW Pages 215 – 216. #8, 14, 21, 22, 25, 27, 29, 30, 35.	4.3
Nov 12	Review Midterm Exam 2	
<b>Nov 14</b>	<b>Midterm Exam 2</b> (Sections 2.4 – 2.6, Sections 3.1 – 3.5, Sections 4.1-4.3)	
Nov 19	Properties of Rational Functions 4.4 HW Pages 224 – 226. #14, 15, 16, 25, 41, 47, 49.	4.4
	Polynomial Division, Synthetic Division A.4 HW Page A34. #5, 10, 13, 17, 25.	A.4
	<b><u>HW 8 Sections 4.3, A.4, 4.4 are due Wednesday, Nov 21.</u></b>	
Nov 21	The Graph of a Rational Function 4.5 HW Pages 234 – 236. #15, 25, 33, 40, 43, 46, 51.	4.5
	<b><u>HW 9 Sections 4.5 is due Wednesday, Nov 28.</u></b>	
Nov 26	Polynomial and Rational Inequalities 4.6 HW Pages 241 – 243. #12, 13, 14, 16, 23, 26, 39, 45, 47.	4.6
	<b><u>HW 10 Sections 4.6 is due Wednesday, Nov 28.</u></b>	
<b>Nov 28</b>	<b>Quiz 5</b> (Sections A.4, 4.4, 4.5, 4.6), <b>Review: Comprehensive Final Exam</b>	
<b>Dec 3</b>	<b>Comprehensive Final Exam 6:00 – 7:50 PM</b>	