

MAT103 COLLEGE ALGEBRA

Summer 2019

Instructor:	Wei Cui	Date:	June 3 – July 12
Email:	wcui@cottey.edu	Institution:	Cottey College

Prerequisites: MAT101 Intermediate Algebra

Course Description: This is an introductory course in algebra. Topics include some basic concepts of algebra, linear and quadratic equations, inequalities, problem solving, coordinate geometry, graphing technique, functions, exponential and logarithmic functions, and polynomial and binomial theorem.

Learning Outcomes:

- Thinks Critically
- Solves Problems
- Enriches Knowledge

Course Outline:

- Review of Some Basic Concepts of Algebra
- Equations, Inequalities, and Problem Solving
- Coordinate Geometry and Graphing Techniques
- Function and Its Applications
- Exponential Equations and Logarithm

Textbook: *College Algebra 8th Edition*, Jerome E. Kaufmann, Karen L. Schwitters. ISBN-10: 1111990360, ISBN-13: 9781111990367 (The hard copy of the textbook is optional.)

Access Code: An access code is required to complete the homework assignments and exams for this course. The access code can be purchased at <https://www.cengage.com/c/college-algebra-8e-kaufmann>.

Lecture Notes: The lectures have been made into videos and uploaded on YouTube. Students can access to those videos at <https://youtu.be/zl64gWwQgRI>.

Grading Policy:

- Homework 28%
- Preclass Homework 18%
- The Highest Exam: 20%
- The Second Highest Exam: 15%
- The Lowest Exam: 5%
- Final Exam: 14%

Course Grade Scale:

A: [93,100)	A-:[89,93)	B+:[86, 89)
B: [83,86)	B-: [80,83)	C+ : [77,80)
C: [74,77)	C-: [70,74)	D+ : [66,70)
D: [63,66)	D-: [60,63)	F : [0,60)

Homework: There will be a graded homework assignment given on each section covered. They must be completed before each expiration date and time. No extension will be given. At the end of the semester, 3 lowest homework grades will be dropped. All of the homework assignments are due by 10:00 pm.

Preclass Homework: There will be a graded preclass homework assignment given on each section covered. They must be completed before each expiration date and time. No extension will be given. At the end of the semester, 3 lowest homework grades will be dropped. All of the preclass homework are due by 10:00 pm.

Make-Up Policy: If a homework or preclass homework is missed due to any circumstance, students will receive a zero on that assignment and the zero will be considered one of your dropped homework or preclass homework at the end of the semester. Makeup tests will only be given in case of serious illness of other extreme situations. A legitimate written excuse will be required.

Final Exam: There will be a comprehensive final exam at the end of semester. The final exam is mandatory and everyone must take it.

Calculator: Cell phone is NOT allowed to use during the exam. You can use a calculator or any version or use the calculator on the computer.

Disclaimer: The instructor reserves the right to change this syllabus at his discretion after notifying the class in advance.

Course Schedule:

- Lecture 1: Exponents and Scientific Notations
- Lecture 2: Radicals
- Lecture 3: Complex Numbers
- Lecture 4: Relationship between Exponents and Radicals
- Lecture 5: Polynomials
- Lecture 6: Factoring Polynomials
- Test 1 Review
- **Test 1: Covers Lecture 1 - Lecture 6**
- Lecture 7: Equations
- Lecture 8: Rational Expressions and Equations
- Lecture 9: Applications of Linear and Quadratic Equations
- Lecture 10: Inequalities
- Lecture 11: Absolute Value Equations and Inequalities
- Test 2 Review
- **Test 2: Covers Lecture 7 - Lecture 11**
- Lecture 12: Coordinate Geometry and Graphing Techniques
- Lecture 13: Functions
- Lecture 14: Linear Functions and Applications
- Lecture 15: Quadratic Functions and Applications
- Lecture 16: Transformations
- Lecture 17: Combining Functions
- Test 3 Review
- **Test 3: Covers Lecture 12 - Lecture 17**
- Lecture 18: Exponential Functions and Applications
- Lecture 19: Logarithm and Logarithmic Functions
- Lecture 20: Exponential and Logarithmic Equations
- Final Exam Review
- Final Exam: **The Final Exam will be a comprehensive exam.**

All Assignments (both Homework and Preclass Homework) are due by 10:00 pm and All Exams are due by 9:00 pm.

Date	Lecture #	Lecture Title	Assignment Deadline
6/3		Orientation	
6/4	Lecture 1	Exponents and Scientific Notations	Pre Hw 1+Hw 1 Tue. 6/4 - 10pm
6/5	Lecture 2	Radicals	Pre Hw 2+Hw 2 Wed. 6/5 - 10pm
6/6	Lecture 3	Complex Numbers	Pre Hw 3+Hw 3 Thur. 6/6 - 10pm
6/7	Lecture 4	Relationship between Exponents and Radicals	Pre Hw 4+Hw 4 Fri. 6/7 - 10pm
6/10	Lecture 5	Polynomials	Pre Hw 5+Hw 5 Mon. 6/10 - 10pm
6/11	Lecture 6	Factoring Polynomials	Pre Hw 6+Hw 6 Tue. 6/11 - 10pm
6/12		Test 1 Review	Practice Test 1 Wed. 6/12 - 10pm
6/13		Test 1	Test 1 Thur. 6/13 - 9pm
6/14	Lecture 7	Equations	Pre Hw 7+Hw 7 Fri. 6/14 - 10pm
6/17	Lecture 8	Rational Expressions and Equations	Pre Hw 8+Hw 8 Mon. 6/17 - 10pm
6/18	Lecture 9	Applications of Linear and Quadratic Equations	Pre Hw 9+Hw 9 Tue. 6/18 - 10pm
6/19	Lecture 10	Inequalities	Pre Hw 10+Hw 10 Wed. 6/19 - 10pm
6/20	Lecture 11	Absolute Value Equations and Inequalities	Pre Hw 11+Hw 11 Thur. 6/20 - 10pm
6/21		Test 2 Review	Practice Test 2 Fri. 6/21 - 10pm
6/24		Test 2	Test 2 Mon. 6/24 - 9pm
6/25	Lecture 12	Coordinate Geometry and Graphing Techniques	Pre Hw 12+Hw 12 Tue. 6/25 - 10pm
6/26	Lecture 13	Functions	Pre Hw 13+Hw 13 Wed. 6/26 - 10pm
6/27	Lecture 14	Linear Functions and Applications	Pre Hw 14+Hw 14 Thur. 6/27 - 10pm
6/28	Lecture 15	Quadratic Functions and Applications	Pre Hw 15+Hw 15 Fri. 6/28 - 10pm
7/1	Lecture 16	Transformations	Pre Hw 16+Hw 16 Mon. 7/1 - 10pm
7/2	Lecture 17	Combining Functions	Pre Hw 17+Hw 17 Tue. 7/2 - 10pm
7/3		Test 3 Review	Practice Test 3 Wed. 7/3 - 10pm
7/4		Test 3	Test 3 Thur. 7/4 - 9pm
7/5	Lecture 18	Exponential Functions and Applications	Pre Hw 18+Hw 18 Fri. 7/5 - 10pm
7/8	Lecture 19	Logarithm and Logarithmic Functions	Pre Hw 19+Hw 19 Mon. 7/8 - 10pm
7/9	Lecture 20	Exponential and Logarithmic Equations	Pre Hw 20+Hw 20 Tue. 7/9 - 10pm
7/10		Final Review	
7/11		Final Review	Final Exam Review Thur. 7/11 - 10pm
7/12		Final Exam	Final Exam Fri. 7/12 - 9pm