Clarendon College
Course Syllabus
MATH 1314 – College Algebra
Fall 2023

Instructor: Katie Page
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Office Hours: M-F 3:00-3:45 PM

Required Text: MathXL account. See grading policy section below.
Optional Text: Algebra and Trigonometry, 6e
Blitzer, Pearson ISBN-13: 978-0134463216

You **DO NOT** really need the physical textbook for this class, because you can access it on MathXL while working on homework, or by going to the "Study Plan." Of course, having a physical textbook is always convenient, but it is by no means necessary to have one.

Recommended Readings: These books don't really have to do with the class, but they are fun and give either some nice mathematics history or show you what mathematics is about from a bigger picture standpoint:

- Number: The Language of Science, Tobias Dantzig. Gives a very comprehensive history of number systems up to our own and beyond, as well as a history of 16th to 19th century mathematics.
- Mathematics From the Birth of Numbers, Jan Gullberg. A mathematics overview book. Is fun to flip through and look at all the pictures.
- Flatland, A Romance of Many Dimensions. Edwin Abbott. A whimsical book designed to help people imagine a world with more than three dimensions.
- The Language of Mathematics, Making the Invisible Visible, Keith Devlin. One of any number of "popular math" books, which are written to give the reader a sense of higher mathematics and its relationship to the world, without the rigorous diction of a regular mathematics text.
- Anything by Lewis Carroll. While most famous for his two books about Alice, Lewis Carroll's primary vocation is a mathematician. He wrote many logic puzzle books that are quite challenging.
- Democracy, the God that Failed, Hans Herman Hoeppe. This is a political science book, and a difficult read, but is an excellent example of deductive reasoning at its finest.

Supplies: Reliable internet access and MathXL account (see below)

Purpose of the Course: College Algebra partially satisfies the requirements for the Associates Degree at Clarendon College and is designed for transfer to a senior college.

Course Description: In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences,

series, probability, and conics may be included.

Prerequisites: Appropriate TSIM scores or consent of the instructor.

Core Objectives:

Critical Thinking Skills
- to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information

Communication Skills
- to include effective development, interpretation and expression of ideas through written, oral and visual communication

Empirical and Quantitative Skills
- to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

Learning Outcomes:

Upon successful completion of this course, students will:

1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, and inverses. (Assesses EQS with Quiz for Student Understanding of THECB Learning Outcome One)

2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equations. (Assesses CT, EQS, and COM with Quizzes to Demonstrate Mastery of THECB Learning Outcome Two and Learning Outcome Three B)

3. Apply graphing techniques. (Assesses CT, EQS with Quiz to demonstrate Mastery of THECB Learning Outcome 2)

4. Evaluate all roots of higher degree polynomial and rational functions. (Assesses CT and EQS with Quiz to demonstrate Mastery of THECB Learning Outcome Four)

5. Recognize, solve and apply systems of linear equations using matrices. (Assesses EQS with homework assignment followed by a quiz to check for understanding and mastery)

Methods of Instruction:

1. Reading assignments.
2. In-person lecture notes.
3. Problem assignment.
4. Discussion of problems.

Grading Policies:

All assignments must be completed on MathXL at *www.mathxl.com*.

I will send you login information for MathXL on the first day of classes..

Homework: 20% Math takes practice, and the importance of homework cannot be exaggerated.

Quizzes: 10% There are a few quizzes which cover the most foundational topics for the course.

Practice Tests: 5% Practice Tests are available for each of the regular tests and the Final Exam. They are generated with the exact same parameters as the real test, and you can take them as many times as you wish. If you take each practice test at least once, you will get these 5 points on your overall grade.

Tests: 40% There will be three regular tests, taken during class time.

Final: 25% The final is comprehensive.

For those of you who like formulas, the above says that your numerical grade will be computed using the formula

Your grade = .2 (HW ave) + 0.1 (Quiz Ave) +
.05 (Number of practice tests attempted at least once, +1 extra for Final Exam practice test)/5 +
.4 (T1 + T2 +T3) / 3 +
.25 (Final).

Grading Scale:		
	90-100	A
	80-89	B
	70-79	C
	60-69	D
	<60	F

All work is to be turned in on time.

Academic Integrity

Clarendon College is committed to a philosophy of honesty and academic integrity. It is the responsibility of all members of the Clarendon College community to maintain academic integrity at Clarendon College by refusing to participate in or tolerate academic dishonesty. Any act of academic dishonesty will be regarded by the faculty and administration as a serious offense.

Academic dishonesty violations include, but are not limited to:

(1) obtaining an examination, classroom activity, or laboratory exercise by stealing or collusion;

(2) discovering the content of an examination, classroom activity, laboratory exercise, or homework assignment before it is given;

(3) observing the work of another during an examination or providing answers to another during the course of an examination;

(4) using an unauthorized source of information during an examination, classroom activity, laboratory exercise, or homework assignment ;

(5) entering an office, classroom, laboratory, or building to obtain unfair advantage;

(6) taking an examination for another person;

(7) completing a classroom activity, laboratory exercise, homework assignment, or research paper for another person;

(8) altering grade records;

(9) using any unauthorized form of an electronic communication device during an examination, classroom activity, or laboratory exercise; and/or,

(10) plagiarism. (Plagiarism is defined as the using, stating, offering, or reporting as one's own, an idea, expression, or production of another person's work without proper credit. This includes, but is not limited to, turning in a paper purchased or acquired from any source, written by someone other than the student claiming credit, or stolen from another student.)

Students are responsible for reporting known acts of academic dishonesty to a faculty member, the program coordinator, the associate dean, and/or dean. Any student with knowledge of a violation who fails to report it shall him/herself be in violation and shall be considered to have committed an act of academic dishonesty. Additionally, any student who reports him/herself in violation of this code before it is likely that another might consider this possibility will be understood as repentant and acting in good faith. Though the confession will not excuse the student for the violation, the confession will be considered and the violation should not result in suspension from school except in the most extreme cases.

While academic integrity and honesty are the responsibility of the individual student, each individual faculty member, teaching assistant, and/or laboratory instructor is responsible for classroom management and for maintaining ethical behavior within the classroom and/or laboratory. Faculty who discover or suspect a violation should discuss the matter with the suspected violator(s) and attempt to resolve the case at that point. In cases of convincing evidence, the faculty member should take appropriate action. The faculty member and student should complete a Counseling Sheet regarding the violation. (The Counseling Sheet should contain at a minimum the date and time of the violation, the course, the instructor's name, the student's name, an explanation of the infraction or facts of the case, and the resolution to the incident.) This form should be signed by the student, faculty member, program coordinator, and the Dean of Students. The Dean of Students will maintain a file on all violations. If a faculty member prefers to report the case directly to the Dean of Students, it remains his/her prerogative to do so. Additionally, if the faculty member and the accused student cannot reach a resolution or if the faculty member believes that suspension from school is the only fair sanction, the case should immediately be reported by the faculty member, in writing, to the Dean of Students. If the Dean of Students observes any trends in student behavior which involve more than one violation or act of academic dishonesty, the Dean is responsible for notifying all faculty members involved, for contacting the student(s) involved, and after consultation with the faculty member(s) involved for taking the appropriate action. The Dean of Students is responsible for the timely notification (normally within two

weeks) to all parties of an action taken.

Students wishing to appeal a disciplinary decision involving academic integrity or acts of academic dishonesty may do so through the Student Appeals and Grievance Procedure.

Classroom Policies:

1. **Final Exams:** Students must take a final exam for each of their academic courses. The schedule of final exam times is published at the beginning of the semester. Do not make plans to leave school before your scheduled final exam. I will not give any early finals except in extreme emergencies after students have provided documentation of said emergency.
2. **Scholastic Honesty:** I adhere to a strict policy regarding academic honesty. Anyone who is dishonest in any way will receive a zero on that assignment or exam with no opportunity to make up the zero and may be dropped from the course with a grade of F. That student, if allowed to remain in the course, will not be allowed to receive any extra credit points from the time of the infraction through the remainder of the course. Furthermore, that student will not be allowed to drop their lowest quiz grade or exam grade. A second act of dishonesty will result in an F for the course. Students who commit an act of academic dishonesty will not be allowed to withdraw from the course with a "W." Note that dishonest behavior includes both the act of copying someone else's work as well as allowing someone to copy your work. Both students are equally guilty and will be equally punished.
3. **Electronic Communication/Entertainment Devices:** Are not allowed. Any phones or headphones seen out (on desk, in hand, in lap) without permission will be taken up and turned into the office.
4. **No food in the classroom:** The presence of food, drink, etc. is distracting to other students. Only water with a lid is allowed.
5. **Be respectful:** Arrive on time. Stay awake during class. Participate in classroom activities and discussions. Don't distract from the class. Do not use profane or inappropriate gestures and/or language.
6. **Withdrawal:** If you decide that you are unable to complete this course or that it will be impossible to complete the course with a passing grade, you may drop the course and receive a "W" on your transcript instead. Withdrawal from a course is a formal procedure that you must initiate. If you do not go through the formal withdrawal procedure, you will receive a grade of "F" on your transcript. A student is permitted to drop a course if he/she obtains an official drop slip from the office and has the instructor sign the slip before the 12th class week. **Remember, a student is only allowed to drop the same class twice before he/she will be charged up to triple the tuition amount for taking the class a third time or more. Furthermore, beginning with the Fall 2007 semester, students in Texas may only drop a total of 6 courses throughout their entire undergraduate career. After the 6, he/she will no longer be able to withdraw from any classes.** If you think you need to drop this course, please talk with me about it first. It is possible that there is something you can do to still pass the course. Don't hurt your chances for a passing grade in the course by not attending labs or taking exams before we have discussed your situation. **The last day to withdraw from the course with a "W" is November 3rd.**

American with Disabilities Act Statement: Clarendon College provides reasonable accommodations for persons with temporary or permanent disabilities. Should you require special accommodations, it is

your responsibility to notify the Office of Student Services (806-874-3571). After notifying Student Services, you are also responsible for notifying your individual instructors. We will then work with you to make whatever accommodations we need to make.

The full details of **Student Rights and Responsibilities** policies can be viewed on Clarendon College's website at:
http://www.clarendoncollege.edu/Resources/Student%20Services/StudentRightsResponsibilities.pdf.

Course Schedule:

All assignments are due at 11:59pm **Central Time**. Notice that the "due date" does not mean the day that you are supposed to submit an assignment. The "due date" is the last possible day to submit an assignment.

I encourage you to not wait until the last minute to complete assignments. You never know when computers/internet will crash or when life situations will prevent you from being able to work on an assignment.

August 21	Last day to Add/Drop
August 18	HW 1a due
August 22	HW 1b due
August 23	HW 1c due
August 25	HW 1d due
August 29	HW 2a due
August 30	HW 2b due
September 1	HW 2c due
September 6	HW 3a due
September 7	HW 3b due
September 11	HW 3c due
September 12	Exam 1 due
September 15	HW 4a due
September 19	HW 4b due
September 20	HW 4c due
September 22	HW 5a due
September 27	HW 5b due
September 28	HW 5c due
October 2	HW 6a due
October 4	HW 6b due
October 6	HW 6c due
October 6	Quiz HW 6 due
October 11	Exam 2 due
October 17	HW 7a due
October 18	HW 7b due
October 20	HW 7c due
October 20	Quiz HW 7 due

October 24	HW 8a due
October 25	HW 8b due
October 27	HW 8c due
October 31	HW 9a due
November 1	HW 9b due
November 3	HW 9c due
November 3	Quiz HW 9 due
November 3	Last day to drop with a "W"
November 7	HW 10a due
November 8	HW 10b due
November 10	HW 10c due
November 13	Quiz HW 10 due
November 10	Exam 3 due

November 15	HW 11a due
November 17	HW 11b due
November 20	HW 11c due
November 29	Quiz HW 11 due
November 29	HW 12a due
November 30	HW 12b due
December 1	HW 12c due
November 30	HW 13 (extra credit) due

December 5	1st half of Final Exam
December 6	2nd half of Final Exam

Course Outline:

Unit 1: Expressions, Exponents, Roots, and Polynomials
(Sections P.1 thru P.4 in textbook)

Unit 2: Factoring and Rational Expressions
(Sections P.5 and part of P.6 in textbook)

Unit 3: The Binomial Theorem, Division, and Partial Fractions
(Sections 11.5, 3.3, rest of P.6, part of 8.3 in textbook)

Unit 4: Graphing Intro, Linear Equations, and Algebraic Modeling
(Sections 1.1 thru 1.3 in textbook)

Unit 5: Complex Numbers and Quadratic Equations
(Sections 1.4 and 1.5 in textbook)

Unit 6: Applications of Quadratic and Other Kinds of Equations
(1.5—just application problems, section 1.6 and 3.7 in textbook)

Unit 7: Functions and Graphing
(Sections 2.1, 2.2, 2.6 in textbook)

Unit 8: Linear Functions and Slope, Quadratic Functions
(Sections 2.3, 2.4, 3.1 in textbook)

Unit 9: Composite and Inverse Functions, Polynomial Functions
(Sections 2.6, 2.7, 3.2 in textbook)

Unit 10: Roots of Higher Order Polynomials, Rational Functions
(Sections 3.3 thru 3.5 in textbook)

Unit 11: Systems of Linear and Non-Linear Equations
(Sections 8.1 thru 8.4, and 9.1 in textbook)

Unit 12: Exponential and Logarithmic Functions
(Chapter 4 in textbook)