

Professor: David McClendon (2046 ASC, phone x2574 (231-591-2574 off campus), hours 1-2 MW, 12-1 TR or by appointment, email: mcclend2@ferris.edu)

Lectures: MWF 11-11:50 in STR 212.

Prerequisite: Math 110 (or equivalent) with a grade of C- or better; or an appropriate score on a standardized test or placement exam (such as 19-23 ACT, 500-570 SAT).

Web: <http://mccclendonmath.com/115.html>

Nothing is here yet, because this is the first time in several years that I have taught this course.

Textbook: *Beginning and Intermediate Algebra*, 7th edition, by Kerr, Massey & Gustafson (ISBN 978-1-4354-6253-3). An online version or a different edition is probably a perfectly good substitute.

Other recommended materials: I recommend a three-ring binder to hold notes and other handouts. I also recommend bringing a couple of colored pens or pencils to class each day, as some of the pictures we will draw to explain concepts are much more easily understandable when drawn in color.

Calculators: Not needed or allowed on quizzes or exams.

Course material: College algebra: linear and quadratic equations; linear and quadratic functions; systems of linear equations; exponents, logarithms and radicals

Learning outcomes: After completing Math 115, it is my hope and expectation that students will be able to:

1. solve problems involving polynomial equations and inequalities;
2. solve problems involving linear systems;
3. solve problems involving rational exponents, radicals and/or complex numbers;
4. solve problems involving quadratic equations;
5. solve problems involving exponential equations;
6. solve problems involving logarithmic equations.

Grading policy: Class participation/in-class activities: 10%. Quiz average: 10%. Three midterm exams: 20% each. Final exam: 20%. Grades will be curved at the end of the semester, but an average of 90% guarantees you at least an A-, an average of 80% guarantees you at least a B-, etc.

Attendance policy: I have no formal attendance policy. That said, **nothing** is more correlated with strong performance in my classes than attendance in lectures.

Recommended Homework: Attached to this syllabus is a list of problems from the textbook which I strongly recommend that you do (even though it will not be collected). Extensive practice with homework problems is the best preparation for quizzes and exams.

Quizzes: There will be sixteen quizzes on the dates listed on the attached course calendar (I reserve the right to change these dates if necessary). These are ≤ 10 minutes long and *always cover the material that has been covered in class since the previous quiz or exam.*

The lowest four quizzes are dropped; the other twelve are averaged to give your quiz average. Makeup quizzes are not given under any circumstances (you have to use one of your four drops).

Midterms: There are three midterm exams, on the dates listed on the attached course calendar. You may not use notes, the book, a calculator or other study aids on the exams. Midterms are not directly cumulative, but mathematics is “inherently cumulative”.

You may make up an exam that you miss (whether your absence is excused or not) but the makeup exams are considerably more difficult. If you miss an exam, contact the professor; you are to make up the exam at the *earliest possible time*.

Final exam: The final exam is cumulative and is otherwise like a midterm.

Getting help: The best place to receive help is my office. In class, I will not have time to take many homework questions, and I will not be able to present all perspectives on a topic. In office hours, I am able to discuss the material at a much more friendly pace and offer some alternate viewpoints that may help you understand the material better.

If you cannot make my scheduled office hours, you can come talk to me anytime my office door is open. Also, I am more than happy to make an appointment to discuss the material with you. Send me an email.

Additionally, the Math Club holds weekly tutoring sessions in FLITE (times and locations of these will be announced later) and the Academic Support Center (ASC 1017, x3543, asc@ferris.edu) offers free tutoring as well.

To schedule an appointment with a tutor, you can use the online scheduling tool Tutor-Trac (located within the “Academic Support” link on MyFSU).

Students with disabilities who require reasonable accommodations to fully participate in course activities or meet course requirements should register with the Educational Counseling and Disability Services office (STR 313, x3057, ecds@ferris.edu). While ECDS will send me a letter outlining the accommodations to make for you, I would appreciate it if you could contact me immediately for assistance with any necessary classroom accommodations.

Academic dishonesty: Papers will be monitored for “magic answers”. Issues with academic dishonesty are taken very seriously, will almost always result in an F for the class, and will be referred to the Office of Student Conduct.

DATE		TOPIC	RECOMMENDED HOMEWORK PROBLEMS
M 8.27		Coordinate Plane	3.1: 1,3,4,27,29,39,40,41,42,45,47,54,55,56
W 8.29		Slope	3.2: 11,12,13,14,21,23,24,25,26,29,33,45,46,47,49
F 8.31		Equations of Lines	3.3: 1,11,12,15,17,19,43,45
M 9.3		<i>No class - Labor Day</i>	
W 9.5	Q1	Graphing Lines	3.2: 51,53,55,56,58,61 3.5: 13,17,21,25,27,33,34,37,59,63,64,65,67,68 7.1: 27,29,33,37,40,42,49,53
F 9.7		Single Linear Equations	
M 9.10	Q2	Systems of Linear Equations	8.1: 15,17 8.2: 47,49,51,55,56,59,60
W 9.12		Systems of Linear Equations II	8.2: 15,21,35,37,39,57,58
F 9.14	Q3	3×3 Linear Systems	8.4: 15,26,33
M 9.17		Absolute Value	7.6: 15,9,16,19,31,33,35,41,47
W 9.19	Q4	Applications of Linear Equations	7.1: 101,103,135
F 9.21		Applications of Systems	8.2: 63,65,73 8.3: 31,33,37,45,49,51,53,54,69
M 9.24	Q5	Review for Exam 1	
W 9.26	E1	EXAM 1: covers 3.1-3.5, 7.1-7.2, 7.6, 8.1-8.4	
F 9.28		Algebra of polynomials	4.5: 21,22,23,24,49,51,59,65,69,71 4.6: 35,47,49,53,59,65,67,75,76,78
M 10.1		Factoring trinomials	7.4: 39,41,45,47,48,53,54,101,103,104,111
W 10.3	Q6	Quadratic equations I	10.1: 59,60,63,64,73,74,75,76
F 10.5	Q7	Square roots	9.1: 1,23,24,25,26,27,37,41,43,45,47
M 10.8		Simplifying square roots	9.4: 21,27,28,37,38,39,40,73,75,79,121,122
W 10.10	Q8	Quadratic equations II	10.1: 65,66,72,79,81 10.2: 11,15,39,41,43,44
F 10.12		Complex numbers	9.7: 15,27,29,31,35,37,38 10.2: 21,27,29,31
M 10.15	Q9	Parabolas	10.4: 21,33,34,35,57,58
W 10.17		Review for Exam 2	
F 10.19	E2	EXAM 2: covers 4.5-4.6, 7.4, 9.1, 9.4, 9.1, 10.1-10.2, 10.4	
M 10.22		Exponent rules	4.1: 15,16,17,19,39,40,51,52,57,61,63,69,73,77,81,87,93,101 4.2: 15,19,21,31,39,55,61,67,75,77,85,91,95,103
W 10.24	Q10	Radical rules	9.1: 15,20,23,24,26,37,41,47,51,55,59,69,73,75 9.4: 21,27,31,37,38,39,40,41,51,59,73,77,87,121 9.5: 19,20,21,23,35,39,47,49,53,55,97,99
F 10.26	Q11	Pythagorean Theorem	9.2: 17,23,27,31 9.4: 99,101,103,107,113,145 9.6: 115
M 10.29		Graphs of exponential functions	11.3: 25,26,27,28,29,30,31,32,33,34,35,41
W 10.31	Q12	More on exponential functions	11.3: 49,50,51,55,57 11.4: 11,21,22,23,24
F 11.2		Logarithms	11.5: 14,25,29,31,33,35,37,39,40,41,47,49,51,87,89,95
M 11.5		More on logarithms	11.5: 27,43,44,53,54,55,59,81,83,101,103 11.6: 1,2,3,4,14,17,18
W 11.7		Logarithm rules	11.7: 14,15,16,17,19,21,22,23,24,25,27,29,37,39,41,43,49,53,73,77
F 11.9	Q13	Graphs of log functions	11.5: 61,62,63,64 11.6: 33,34,35,36
M 11.12		Exponential and log equations I	11.8: 1,3,17,19,21,23,33,35,37,38,39,43,45,46,47,49
W 11.14		Exponential and log equations II	11.8: 89,91,93,97
F 11.16	Q14	Review for Exam 3	
M 11.19	E3	EXAM 3: covers 4.1-4.2, 9.1-9.6, 11.3-11.8	
W 11.21		<i>No class - Thanksgiving Break</i>	
F 11.23		<i>No class - Thanksgiving Break</i>	
M 11.26		Introduction to functions	7.3: 29,31,33,37,39,69,71,72
W 11.28		Order of operation with functions	Homework Set 115-A (distributed in class)
F 11.30	Q15	Operations on functions	11.1: 23,24,27,28,31,32,33
M 12.3		Composition of functions	11.1: 39,41,47,48,49,50,71,77
W 12.5	Q16	Decomposing functions	Homework Set 115-B (distributed in class)
F 12.7		Review for Final Exam	
R 12.12	FE	FINAL EXAM: 10-11:40 AM (covers whole semester)	