Professor: David McClendon (2046 ASC, phone x2574 (231-591-2574 off campus), hours MTWR 10-10:50 or by appointment, email: `mcclend2@ferris.edu`)

Lectures: MTWR 9:00-9:50 in STR 137.

Required materials: You need two items for this course:

1. The textbook *Precalculus: Mathematics for Calculus* by Stewart, Redlin and Watson (6^{th} edition or newer; the 5^{th} edition is no good); ISBN 978-1-305-88440-3.
2. A calculator that does trigonometry (if you are eventually taking Math 251, you will at that point need a TI-83 or TI-84).

Recommended Supplies: I recommend two other items for this course:

1. Colored pens or pencils will be helpful for note-taking: many of the pictures we will draw to explain concepts are much more easily understandable when drawn in color.
2. You will receive several handouts over the course of the semester; a three-ring binder might be helpful to organize these.

Web: I maintain a personal web page at `http://mcclendonmath.com/130.html`; handouts and notes may appear here later.

Prerequisite: Math 120 (trigonometry) with a grade of C- or better, or the equivalent.

Course material: Functions and associated equations.

Learning outcomes: After completing Math 130, it is also my hope and expectation that students will be able to:

1. Use the concepts of functions (identify and classify functions; evaluate functions; graph functions and transformations; determine domains and ranges; determine if functions are one-to-one; determine inverses of one-to-one functions; compose and decompose functions).
2. Use the concepts of polynomials (solve, graph and apply polynomial functions; manipulate polynomial expressions).
3. Use the concepts of exponential and logarithmic functions and expressions (solve, graph and apply exp and log functions; manipulate exp and log expressions).
4. Use the concepts of trigonometric functions (solve, graph and apply trig functions; manipulate trig expressions using identities and unit circle definitions).
5. Use the concepts of sequences (identify sequences; determine terms in a sequence; find sums of sequences; model arithmetic and geometric sequences; prove identities with induction; use the binomial theorem).

Grading policy: Class participation: 7.5%. Homework: 7.5%. Quiz average: 10%. Three midterm exams: 16.666% each. Final exam: 25%. 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.

Homework: There will be (almost) daily homework assignments. These assignments are **occasionally** collected on dates not announced in advance and graded not for correctness, but for completion. You receive full credit if it looks like you made a serious attempt to solve most of the problems, and you will not if it looks like you just copied answers or if you only did a small amount of the problems. While I don't deduct for errors, I will make comments on your homework while grading to help keep you from making the same mistakes on exams.

Quizzes: There will be eighteen in-class 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 cover the material that has been covered in class since the previous quiz or exam. The lowest five quizzes are dropped; the other 13 are averaged to give your quiz average. Makeup quizzes are not given under any circumstances.

Midterms: There are three midterms given in class on **February 21**, **March 28** and **April 25**. You will not be permitted to use any study aids or calculators on the exams. The midterms are not "directly cumulative", but mathematics is by its nature inherently somewhat 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 as with the midterm, you will not be permitted to use any study aids or calculators.

Technology usage: Calculators are never, ever, ever permitted on any exam and rarely permitted on quizzes - questions on quizzes and exams use "easy" numbers and expressions that a Math 130 student should reasonably be able to compute and manipulate by hand.

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.

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 (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.