Mathematics 110 Pre-Calculus, Fall 2014
MWF: 10:30-11:20
Henry 227

Instructor: Eric Dodson Office: Wesselkamper 110
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Office Hours: M, Tu, Th: 3:00-4:00PM ; Fr 11:30 AM-12:30 PM
And by appointment

Text : **Precalculus**, Sullivan & Sullivan

Prerequisites: MA 103 or placement

Grading: The course grade will be based on:

Quizzes	20%
Midterms(4)	60%
Final Exam	20%

-With the following cutoffs: A=86-100, B=76-85, C=61-75, D=50-60, F=<50
-No extra credit will be offered.

Attendance: You are responsible for all material that is covered in class. If you miss a class, it is your responsibility to get with another student in the class to obtain the notes for that day, and prepare yourself for the next quiz. Attendance will be taken via the daily quiz.

Quizzes: A five to ten minute quiz will be given at the beginning of every class. The quiz will start promptly at 1:00 PM. The material to be covered on the quiz will be presented the previous class and practice problems will be given. No make-up quizzes will be given. At the end of the semester I will drop your two lowest quiz scores. Here's your first MATH problem of the semester: Class meets 41 times. What percentage of your grade does each quiz count for? [Hint: No quizzes when we have a midterm]

Midterms: Four midterms will be given. At the end of the semester the lowest score will be dropped. The dates of the midterms are listed below.

Midterm I	Friday, September 12
Midterm II	Friday, October 3
Midterm III	Friday, October 24
Midterm IV	Friday, November 14

There will be no makeup exams except for special cases (deployment, serious illness, etc.); verification will be needed.

Final Exam: Date and time: TBA
The final exam will be comprehensive

Helpful advice: Come to class every day. Take good notes and ask questions. Study the material covered in class every day and master the assigned practice problems. Come get help if you get stuck. Stay on top of the material (Don't cram). If you are having difficulty come see me ASAP

Math is not a spectator sport, the only way to get better is to practice.

Use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes. Student who cannot comply with this rule will be asked to leave. Please refer any questions to the Dean of Natural Sciences/Mathematics

Material to be covered:

Review: Fractions and Exponents

Chapter 1: Functions and Their Graphs
- Definition, properties and graphs of functions
- Average rate of change
- Transformation of graphs
- Mathematical models: building functions

Chapter 2: Linear and Quadratic Functions
- Linear functions: equations and graphs
- Quadratic functions and their zeros
- Properties of quadratic functions
- Applications of quadratic functions

Chapter 3: Polynomial and Rational Functions
- Properties of polynomial functions
- Zeros and multiplicity
- Maxima and minima
- Properties of rational functions
- Asymptotic behavior of rational functions
- Limits

Chapter 4: Exponential and Logarithmic Functions
- Properties of exponential functions
- Properties of logarithms
- Solving exponential and logarithmic equations
- Applications
- Inverse functions

Chapter 5: Trigonometric Functions
- Angles and their measure
- Right triangles
- The unit circle
- Sinusoidal curve fitting

Chapter 6: Analytic Trigonometry
- Inverse trigonometric functions
- Trigonometric equations
- Trigonometric identities

Chapter 7: Applications of Trigonometric Functions
- Law of Sines
- Law of Cosines
- Rotational motion
- Simple harmonic motion

And selected topics from (time permitting)

Chapter 8: Polar Coordinates, Vectors