

## Syllabus for Pre-Calculus Fall 2022

Math 162 section 008 crn 42014

1:00 pm - 2:30 pm MW Bonnell Building BR-08

Professor John Jernigan

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Text: Stewart, Redlin, Watson Precalculus

Access code to WebAssign is required.

Your actual syllabus in Canvas will be more detailed, and can be accessed once enrolled in the course. It will include directions on making an account in WebAssign.

All the work for the course is done in WebAssign, communication is through Canvas.

1. Each week there are two homework assignments and one Exam.
2. The first assignment is due by 11:59 p.m. on Tuesday, the second by 11:59 p.m Friday. Week 1 is an exception, there is only one homework due Friday. It longer than usual and is all review.
3. You may spend as much time as you like on the homework, using the hints and the online help.
4. Exams are due Sunday by 11:59 p.m.
5. The weekly exam is approximately 12 questions, timed at 90 minutes, and may not be taken more than once. Please do not open the exam until you are ready to take it.
6. Participation in this course means the completion of assignments. Anyone missing 6 or more assignments will automatically fail the course irrespective of grade. There are no exceptions to this policy.

Your grade will be determined as follows:

Homework is 20%, Weekly exams 60%, Final Exam 20%

Topics include: Exponential and logarithmic functions, trigonometric functions, identities, inverse trigonometric functions, law of sines, law of cosines, trigonometric form of complex numbers, applications.

Prerequisite: MATH 161 with a grade of "C" or better.

Upon successful completion of this course, students will be able to:

1. Graph and determine properties of exponential and logarithmic functions
2. Graph and determine properties of trigonometric functions
3. Graph and determine properties of inverse trigonometric functions
4. Graph and determine properties of inverse trigonometric functions
5. Use polar coordinates to graph polar equations
6. Convert complex numbers between rectangular and polar form
7. Perform operations on vectors in the plane

**It is your responsibility to keep track of how well you are doing in the class.** You can access your current grade from WebAssign

Students who believe they may need an accommodation based on the impact of a disability should contact me privately to discuss their accommodation form and specific needs as soon as possible, but preferably within the first week of class. If you need to request reasonable accommodations, but do not have an accommodation form, please contact the [Center on Disability](#) phone number 215-751-8050.

Please be mindful of the [Withdraw & Incomplete Dates](#)

Students must be familiar with and adhere to the college policy on [academic honesty](#)

Finally a word about cheating. You may use any resources you like for this class, online or otherwise. I recommend [wolframalpha](#), but some prefer [mathway](#) or [symbolab](#) . [Desmos](#) is good for graphing. The number of web based math applications is almost unlimited. Cheating for this course is defined as having someone else do your class work, either paid or otherwise. Getting the answers from classmates or others and using them as your own is unacceptable.

While I am aware that most students take math courses only when required to do so, I sincerely hope that this course will not only be stress free, but also enjoyable and instructive. Much of this depends on you. Please ask questions, give your opinion, and participate!

## Course Schedule

<b>Week 1</b>	
4.1	Exponential functions
<b>Week 2</b>	
4.2	The natural exponential function
4.3	Logarithmic functions
<b>Week 3</b>	
4.4	Laws of logarithms
4.5	Exponential and logarithmic equations
<b>Week 4</b>	
4.6	Modeling with exponential functions
5.1	The unit circle
<b>Week 5</b>	
5.2	Trigonometric functions
5.3	Trigonometric graphs
<b>Week 6</b>	
5.4	More Trigonometric Graphs
5.5	Inverse trigonometric functions
6.1	Angle measure
<b>Week 7</b>	
6.2	Trigonometry of right triangles
6.3	Trigonometric functions of angles
<b>Week 8</b>	
6.4	Inverse Trigonometric Functions
6.5	Law of Sines
<b>Week 9</b>	
6.6	Law of Cosines
7.1	Identities
<b>Week 10</b>	
7.2	Addition and subtraction formulas
7.3	Double angle, half angle and a bunch of other formulas
<b>Week 11</b>	
7.4	Basic Trigonometric Equations
7.5	More Trigonometric equations
<b>Week 12</b>	
8.1	Polar coordinates
<b>Week 13</b>	
8.3	Polar form of a complex number
<b>Week 14</b>	
8.3	Polar form of a complex number, Powers and roots.
Review and Final	