

Syllabus for Pre-Calculus 2 Spring 2024

Math 162 Section 001 CRN 10587

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

Professor John Jernigan

215-751-8786

jjernigan@ccp.edu

<http://jjernigan.com>

Office: B2-25C 17th and Spring Garden

Text: Stewart, Redlin, Watson Precalculus

Canvas is your course syllabus. The weekly topics can be found in the modules in Canvas.

1. Each week there are two homework assignments and one Quiz on WebAssign.
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.
3. You may spend as much time as you like on the homework, using the hints and the online help.
4. Online quizzes are due Sunday by 11:59 p.m.
5. The weekly quiz 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. Extensions will not be given for any reason. Please do not email me for extensions. I will not respond to such emails.
7. In addition to the work on WebAssign, there will be 3 in-class exams, daily in-class quizzes, and a Final Exam. The in-class quizzes can be viewed and completed in advance on my website (url above).
8. Anyone missing 5 or more assignments, including online homework, online quizzes, and in-class quizzes, will automatically fail the course irrespective of grade. There are no exceptions to this policy.
9. Anyone missing 5 or more classes will automatically fail.

Grades are calculated as 10% homework, 15% weekly online exams, 10% in-class quizzes, 15% for each Test, 20% final

Grading scale is 90 - 100 A; 80 - 89 B, 70 - 79 C, 60 - 69 D, < 60 F An "I" is only given if a student is currently passing, but cannot take the final due to a documented emergency. **It is your responsibility to keep track of how well you are doing in the class.** Keep all completed quizzes and exams in order to keep a record of your scores.

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

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. Solve problems using trigonometric identities
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 any time via Canvas.

The subject matter of the course (transcendental functions) is difficult to master and will require your undivided attention if you are to succeed. Therefore, cell phones must be turned off and put away for the duration of the class. Anyone using a phone during class will be asked to put it away. Having to be told repeatedly (more than three times) will result in expulsion from the course. A scientific calculator is necessary.

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, room BG-39, phone number 215-751-8050.

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

In the event of inclement weather you can check <http://www.ccp.edu> to determine if the school is closed.

Important dates such as drop dates and vacation days can be found on the [Academic Calendar](#)

In the unlikely event that, due to an emergency, you cannot make it to a scheduled exam, you must contact me within 24 hours by email. Written documented proof is required for excused absences. Otherwise missing an exam will result in a 0.

Office hours are in BR-08. M W F 10:30 - 11:00 or M W 2:30 - 4:30, F 1:00 - 3:00

Course Schedule

Week 1

4.1 Exponential functions

Week 2

4.2 The natural exponential function

4.3 Logarithmic functions

Week 3

4.4 Laws of logarithms

4.5 Exponential and logarithmic equations

Week 4

4.6 Modeling with exponential functions

5.1 The unit circle

Week 5

5.2 Trigonometric functions

5.3 Trigonometric graphs

Week 6

5.4 More Trigonometric Graphs

5.5 Inverse trigonometric functions

6.1 Angle measure

Week 7

6.2 Trigonometry of right triangles

6.3 Trigonometric functions of angles

Week 8

6.4 Inverse Trigonometric Functions

6.5 Law of Sines

Week 9

6.6 Law of Cosines

7.1 Identities

Week 10

7.2 Addition and subtraction formulas

7.3 Double angle, half angle and a bunch of other formulas

Week 11

7.4 Basic Trigonometric Equations

7.5 More Trigonometric equations

Week 12

8.1 Polar coordinates

Week 13

8.3 Polar form of a complex number

Week 14

8.3 Polar form of a complex number, Powers and roots.

Review and Final

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!