Syllabus for Pre-Calculus 2 Fall 2018

Math 162, crn 42014
12:40 - 1:40 MWF BR-19
Professor John Jernigan
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Office: B2-25C 17th and Spring Garden
Text: Stewart, Redlin, Watson Precalculus 2 custom edition

Your syllabus, homework assignments, practice tests and quizzes are posted on the web under the address above. Please use this resource to your benefit. You may check the quizzes in advance by going to the site. In addition, I will assign worksheets from the site to hand in. This will count as a quiz towards your grade.

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. 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

There will be three tests and a final exam, as well as a short (5 question) daily quiz selected from the homework exercises. The quizzes are intended as a check on your progress, and will be part of the grade. There will be absolutely no makeup quizzes given.

Grading will be as follows: the total quiz score counts as one test and the final counts as two. Thus the formula for grading will be

\[
\left( \frac{\text{test 1} + \text{test 2} + \text{test 3} + \text{total quiz score}}{4} \right)
\]

Please bring your textbook, pencil and paper to each class, as we will often do problems during the class period. We will cover a significant amount of material this semester. You are encouraged to read ahead to prepare for class, as well as complete the homework assignments.

My office hours are MWF 2:00 - 4:00. If these times are not suitable you are welcome to make an appointment. Please do not hesitate to come to me with any class problems you are having. There is no reason for any one who works hard to do poorly in this class. You are also encouraged to use the Learning Lab in room B2-36 weekdays and B1-28 Monday through Thursday evenings. Free peer tutoring is available beginning with the second week of
classes. Free weekly workshops begin the third week of classes. For more information go to
http://faculty.ccp.edu/faculty/lhudoba/mathlab/workshop.html

It is the policy of CCP that no more than six (6) absences are allowed during the course of the
semester. Any student missing more than six classes will be automatically dropped from the
class. **Cell phones must be turned off and put away during class.** Really. I mean it...

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 accom-
modations, but do not have an accommodation form, please contact the Center on Disability,

In the event of inclement weather there are several ways of determining whether CCP is
open. You may listen for CCP’s school closing number 238 or 2238 on KYW radio at 1060
AM or check KYW’s school closing web page at http://www2.kyw1060.com/schools/ or check
http://www.ccp.edu/

**Course Schedule**

4.1 Exponential functions
4.2 The natural exponential function
4.3 Logarithmic functions
4.4 Laws of logarithms
4.5 Exponential and logarithmic equations
4.6 Modelling with exponential functions

**Exam 1**

5.1 The unit circle
5.2 Trigonometric functions
5.3 Trigonometric graphs
5.5 Inverse trigonometric functions
6.1 Angle measure
6.2 Trigonometry of right triangles
6.3 Trigonometric functions of angles
6.5 Law of sines
6.6 Law of cosines

**Exam 2**

7.1 Trigonometric identities
7.2 Addition and subtraction formulas
7.3 Double angle, half angle and a bunch of other formulas
7.4, 7.5 Trigonometric equations
8.1 Polar coordinates
8.3 Polar form of a complex number

**Exam 3**

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!