Syllabus for Pre-Calculus 1 Spring 2018

Math 161, crn 11994
3:00 - 4:00 MWF BR-08
Professor John Jernigan
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Office: B2-25C 17th and Spring Garden
Text: Stewart, Redlin, Watson Precalculus 1 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: Functions and relations and their graphs, transformations and symmetries; composition of functions; one-to-one functions and their inverses; polynomial functions; complex numbers; rational functions; conic sections.

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

1. Determine basic properties of functions
2. Perform operations on functions
3. Graph polynomial and rational functions
4. Perform operations on complex numbers
5. Find real and complex roots of quadratic functions
6. Graph transformations of functions
7. Graph and determine properties of conic sections

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

$$\left(\frac{\text{test } 1 + \text{ test } 2 + \text{ test } 3 + \text{ total quiz score} + 2 \times \text{ final}}{6}\right)$$

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 Monday Wednesday Friday 10:00 - 11:00, 2:00 - 3:00. 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.

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.

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**

1.2   Exponents and radicals  
1.3   Algebraic expressions  
1.4   Rational expressions  
1.5   Equations  
1.8   Inequalities  
1.9   Coordinate plane, Circles  
1.10  Lines  

**Exam 1**

2.1   Functions  
2.2   Graphs of functions  
2.5   Linear Functions  
2.6   Transformation of functions  
2.7   Combining functions  
2.8   One to one functions and inverse functions  
3.1   Quadratic functions  

**Exam 2**

3.2   Polynomial functions and graphs  
3.3   Dividing polynomials  
3.4,3.5  Zeros of polynomials  
3.6   Rational functions  

11   Conic Sections  

**Exam 3**

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!