

**Brazosport College**  
**Syllabus for: Math 2412 Precalculus                      Fall 2013**  
**Instructor: Kevin O'Neill      Office: B206      Phone: 230-3620**  
**Office hours: M-W 10:30 – 12:15, 3 – 5; TTH 10:30 12:15, 2 - 5**  
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**Course Description**

Precalculus is intended to enhance your knowledge of algebra and Trigonometry, and to prepare you for future mathematics and science courses, especially Calculus.

**Course Outcomes**

Upon completion of the course, the student will be able to:

1. Evaluate and make a graph of a piecewise function.
2. Find the vertical, horizontal and/or oblique asymptotes of a rational function.
3. Decompose a rational expression into the sum of partial fractions.
4. Define geometrical representation of vectors
5. Perform the operations of addition, subtraction, and scalar multiplication with vectors
6. Graph parametric equations.
7. Graph and give important features of ellipses and hyperbolas.
8. Plot and convert between rectangular and polar coordinates.
9. Evaluate difference quotient.
10. Find the distance and the midpoint in 3-D rectangular system.
11. Find the equation of a rotated conic.
12. Solve equations in polar coordinates.
13. Find the polar equation of conics.
14. Factor expressions containing negative and rational exponents.

**Prerequisites:**

MATH 1314 or the consent of the instructor and department chair.

**Textbook:**

Larson, Precalculus, 8th edition, Brooks/Cole Cengage ISBN: 1-4390-4577-1

This is a calculator-required class. The TI-83 and TI-84 Graphing Calculator are recommended, and are what I will demonstrate the keystrokes in class with. The TI -86 is fine, but will differ a bit in the keystrokes. The TI-85 or TI-82 are not recommended, unless you are already very familiar with their use. You may not use a TI-89, 92 or any model that allows symbolic manipulation or has a built in CAS or equivalent system during a test. I may require you to purge the memory of your calculator before a test, so if you have a program you don't want to lose you should back it up off the calculator. If you want to use a Casio, HP, or other oddball calculator in this class, for example because it is required in future engineering classes at another school, please check with me first, and please bring the manual for your calculator with you when you do. I don't want to surprise you on the day of a test by telling you you can't use the calculator you're familiar with.

**Lab Requirements:**

None

**Students with Disabilities:**

Brazosport College is committed to providing equal education opportunities to every student. Brazosport College offers services for individuals with special needs and capabilities including counseling, tutoring, equipment, and software to assist students with special needs. Please contact the Special Populations Counselor, 979-230-3236, for further information.

**Academic Honesty:**

Brazosport College assumes that students eligible to perform on the college level are familiar with the ordinary rules governing proper conduct including academic honesty. The principle of academic honesty is that all work presented by you is yours alone. Academic dishonesty including, but not limited to, cheating, plagiarism, and collusion shall be treated appropriately. Please refer to the BC Student Guide for more information, this is available online at <http://www.brazosport.edu>, click on the CATALOGS AND SCHEDULES link under STUDENTS. Academic dishonesty violates both the policies of this course and the Student Code of Conduct. In this class, any occurrence of academic dishonesty will be referred to the Dean of Student Services for prompt adjudication, and will result in a zero for the assignment, quiz or test with no make-up. Sanctions may be imposed beyond your grade in this course by the Dean of Student Services.

**Attendance and Withdrawal Policies:**

Attendance is taken each class day but is not part of your grade. This is not a developmental math class, I am not required to drop you if you stop coming to class, and very likely will not drop you if you do so; if you stop coming and fail to drop it is therefore very likely you will make an F. If you know you will be missing class let me know by either phone or e-mail.

The last day to drop a class this semester is Friday March 26; please note the school is only open until noon on Fridays.

Please come to class on time. Walking in late every day is rude. Also, please turn off your cell phone before class, or, if you need to be accessible, switch to vibrate or some other method which won't disturb us all when it rings, and leave the class to answer the phone.

Come to class. It's very hard to pass a class like this if you don't attend. Really.

**Grading Scale and Rubric:**

The grade ranges are:

A:	90 -100%
B:	80 - 89%
C:	70 - 79%
D:	60 - 69%
F:	Below 60%

My grading method is:

4 tests worth 15% each
Final exam worth 20%
A number of quizzes, which together are worth 20%

I collect all the homework at the end of the semester, when you take the final exam. I then grade your final and calculate your course grade. If you are within 1.5 points of the next letter grade, I look carefully over your homework. If it appears to me that you have made a good effort at the homework throughout the semester, I will bump you to the next letter grade. If you have done, say, about half the homework, I might bump you a maximum of .8 or so points. If you have done no homework, you get exactly what your course average indicates.

I will be happy to return your homework to you after I have turned grades in.

**Testing:**

As stated above, we will have four tests and a final exam. Each test will use an entire class period. I anticipate allowing you to have one page of notes to refer to during each test, though I reserve the right to adjust this policy, and you should of course have your calculator; the tests are written with the assumption that they will be taken with a graphing calculator. You can try to get by without one, but I will not adjust the test to accommodate your not having a calculator, or your having forgotten it that day. I will be glad to help you with using the calculator during the class, but I cannot help you with anything during the test, including how to enter a problem into the calculator or how to interpret the result. Use of the calculator is part of what I'm testing.

We will have quizzes on about one half to one third of the days we don't have tests. I often allow you to work with another student on a quiz, or to refer to your book or to other resources. Please don't confuse my quiz standards with my testing standards.

**Make-up Policy:**

If you miss a test and do not have a verifiable excuse, you get a zero. With a verifiable excuse, I will either write you a make-up test or, in some very unusual cases, allow your final grade to count as the missing test grade. Make-up tests are usually somewhat harder than the original test was, since I used up all the "obvious" questions on the original test, and the average grade on make-up tests is lower than the average grade on tests taken in class. It's to your advantage to take the test with the rest of the class.

I do not allow you to make up quizzes, but I do drop your lowest quiz grade. You should expect to have about ten quiz grades by the end of the semester.

**Important Dates:**

September 2	Holiday
November 1	Last Day to Withdraw
November 27-29	Thanksgiving Holidays (starting at noon on the 26 <sup>th</sup> )
December 9-12	Finals

**Math Center:**

The math center is in the Student Success Center (second floor of the main building above the counseling and registration office). The math center provides drop-in tutoring Monday – Thursday 9 am – 8 pm and Friday 9 am – noon. The math center tutors can assist with transitional math, college algebra, trigonometry, accounting, statistics, calculus, and every other math course offered at the college.

For questions about math tutoring, contact Rebecca Goins at 979-230-3184.

To review specific topics online, look at the Math Solutions Website:

[www.brazosport.edu/math](http://www.brazosport.edu/math) Go to “Already Taking Math” on the left, then to “Remembering Skills From The Past”. There is a good selection of review videos, some by BC instructors and some external videos.

**As far as I know**, the external (Khan Academy) videos you are pointed to on that page are pretty good. But I have not reviewed every one of them myself. If you find one that’s great, let me know. If you find one that’s terrible and/or just plain wrong, please also let me know.

**Make-Up Testing:**

Learning Services is located downstairs adjacent to the library behind the counseling and registration offices. The phone number is 230-3523. To take a make-up test you must make arrangements with me as well as signing up for a specific day and time. You must have a current BC ID to take a make-up test.

**Other Student Services:**

Counseling and Advising	979-230-3040
Financial Aid	979-230-3294
Student Activities	979-230-3355
Math Department	979-230-3225

To reach the Information Technology Department for computer, email, or other technical assistance call the Help Desk at 979-230-3266