

Precalculus

MAT 186

INSTRUCTOR: Brian F. Kennedy

Office: C-156

Phone: 860-215-9441

E-mail: mathbk@yahoo.com

REQUIRED TEXT

Precalculus: Graphs and Models by Coburn and Herdlick, a graphing calculator is also required.

CREDIT: 4 credit hours

PREREQUISITE: MAT 172 or equivalent.

COURSE DESCRIPTION

This course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include trigonometric functions, trigonometric identities and applications, conic sections and introductory sequences and series.

GRADING POLICY

A student will receive one of the following grades: A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F, I, W, P or Audit. Determination of that grade will be based on the following. Throughout the semester there will be four, 100 point exams (an exam will be announced at least one week prior to its administration). Quizzes and a writing project totaling 100 points. A comprehensive Final Exam will be worth 100 points. Your final grade will be computed by totaling all the points earned on the five exams, quizzes and project then dividing that total by the 600 possible points.

Grade Equivalents:	A 93 - 100	B 83 - 86	C 73 - 76	D 63 - 66
	A- 90 - 92	B- 80 - 82	C- 70 - 72	D- 60 - 62
	B+ 87 - 89	C+ 77 - 79	D+ 67 - 69	F 59 or less

Quizzes will be take home and cannot be made up. No test can be made up without prior arrangement with the instructor. All makeup tests will take place during final exam week.

DISABILITIES STATEMENT

If you have a learning or physical disability which may require classroom or test-taking modifications, please see me as soon as possible. If you have not already done so, please be sure to contact Matt Liscum (learning disabilities) and/or Elizabeth Wilcox (physical disabilities).

ACADEMIC INTEGRITY POLICY

All students are expected to demonstrate their knowledge of the material on each quiz and test. Any student caught cheating will receive a zero on that test.

CLASS CANCELTION POLICY

If class is canceled by the instructor a notice will be placed on the classroom door. If time permits, the class will be notified by email.

Three Rivers is committed to ensuring that each member of our community has the opportunity to participate fully in the process of education free from acts of sexual misconduct, intimate partner violence and stalking. It is the intent of Three Rivers to provide safety, privacy and support to victims of sexual misconduct and intimate partner violence.

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Date	Chapters (Sections) covered	Course Outcomes
1/17		1. Evaluate a function at any given value of x .
1/22	1.3, 2.1	2. Find the domain and range of a function.
1/24	2.2, 5.1	3. Graph the function, using tables and transformations.
1/29	5.2, 5.3	4. Model with functions.
1/31	5.4, 5.5	5. Combine functions and find their compositions and inverses.
2/5	Review	6. Perform operations with complex numbers.
2/7	Test #1 Chapters 1,2, 5	7. Find trigonometric form of a complex number.
2/12	6.1, 6.2	8. Evaluate, graph exponential and logarithmic functions.
2/14	6.3, 6.4	9. Solve exponential and logarithmic equations, model with exponential and logarithmic equations.
2/21	6.4, 6.5	10. Find angle measure in radian and degrees.
2/26	6.5, 6.6	11. Find all trigonometric ratios in a right triangle.
2/28	6.7, 6.8	12. Find the values of trigonometric functions from the information given.
3/5	Review	13. Solve a right triangle.
3/7	Test #2 Chapter 6	14. Solve a triangle using the Law of Sines, the Law of Cosines.
3/19	7.1, 7.2	15. Find trigonometric functions of real numbers using unit circle approach.
3/21	7.3, 7.4	16. Graph the trigonometric functions.
3/26	7.5, 7.6	17. Use the trigonometric identities, addition, subtraction, double and half-angle formula.
3/28	7.6, 7.7	18. Evaluate inverse trigonometric functions.
4/2	8.1, 8.2	19. Solve trigonometric equations.
4/4	8.5, 8.6	20. Plot the complex numbers on the complex plane.
4/9	Review	21. Find all characteristics of conic sections, write the equations of circles, parabolas, ellipses, hyperbolas in standard form and graph those conic sections.
4/11	Test #3 Chapters 7, 8	22. Use sequence notation to write the terms of sequences.
4/16	10.1, 10.2	23. Use factorial notation.
4/18	10.3, 10.4	24. Use summation notation to write sums.
4/23	10.5, 11.1	25. Model the real-life problems with arithmetic and geometric sequences.
4/25	11.2 - 11.4	
4/30	Review	
5/2	Test #4 Chapters 10, 11	
5/7	Review	
5/9	Final Exam	

If any student experiences sexual misconduct or harassment, and/or racial or ethnic discrimination on campus, or fears for their safety from a threat while on campus please contact the title IX Coordinator, Vicki Baker 860.215.9208.

All students are required to maintain an online learning portfolio in Digication that uses the college template.