MAT 186, PRECALCULUS, Fall 2015, CRN 32034
T/R 2:00 – 3:40 pm, room E225
Elizabeth Godwin

PREREQUISITE: MATH 172, College Algebra
TEXT: Precalculus, 9th edition by Ron Larson

Office Hours: M 5:00 – 6:00 pm W/F 11:00 – 12:00 noon and F 9:00 – 10:00 am in Room C206 or by appointment

Email egodwin@trcc.commnet.edu , Phone (860)- 215-9452

COURSE DESCRIPTION: The course is a detailed study of functions and relations, including circular functions, operations on functions and their graphs. Students will study polynomial, power, rational, exponential, logarithmic, and trigonometric functions, trigonometric identities and applications, introductory sequences and series

MEASUREMENTS:

3 tests	100 points each	300
10 quizzes	25 points each	250
HW/Classwork	some graded assignments	150
Final exam	100 points	100

Final grade = (total points earned/800) *100

Grade equivalents: A 93 – 100, A- 90 – 93, B+ 87 -89, B 83 – 86, B- 80 – 82, C+ 77 – 79, C 73 – 76, C- 70 – 72, D+ 67 – 69. D 63 – 66. D- 60 – 62, F below 60, N if the student completed less than 60% of work.

Attendance: Your attendance in the classroom, participation in classroom work/projects and preparation for each class is required and is essential to success in the course. If you are unable to attend class then I expect you to email me before if possible but afterwards at the very least. This is for your protection. If something happens then you will have written documentation. There will be no makeups for tests, quizzes and written homework assignments. If you are not in class on these days or do not complete them in time then you will get a 0. If an unusual circumstance arises and you provide adequate documentation then I will consider allowing a makeup..

Support Services: Tutorial services, peers, or meeting with me for extra help during office hours.

Class Cancellation: In case of inclement weather, check the college website for class cancellations or call 860-215-9000 for recorded message on the college phone.

Plagiarism and Academic Honesty: At TRCC, we expect the highest standards of academic honesty. The Board of Trustees' Proscribed Conduct Policy prohibits cheating on examinations, unauthorized collaboration on assignments, unauthorized access to examinations or course materials, plagiarism.

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Disabilities If you have a disability that may affect your progress in this course, please meet with a Disability Service Provider (DSP) as soon as possible. Please note that accommodations cannot be provided until you provide written authorization from a DSP.

TRCC Disabilities Service Providers Counseling & Advising Office Room A-119	
Matt Liscum (860) 383-5240	• Physical Disabilities • Sensory Disabilities • Medical Disabilities • Mental Health Disabilities
Chris Scarborough (860) 892-5751	• Learning Disabilities • ADD/ADHD • Autism Spectrum

MyCommNet Alert: **MyCommNet** is a system that sends text messages and emails to anyone signed up in the event of a campus emergency. Additionally, TRCC sends messages when the college is delayed or closed due to weather. All students are encouraged to sign up for myCommNet Alert. A tutorial is available on the Educational Technology and Distance Learning Students page of the web site. http://www.trcc.commnet.edu/div_it/educationaltechnology/Tutorials/myCommNetAlert/MIR3.html

Digication: All students are required to maintain an online learning portfolio in Digication that uses the college template. Through this electronic tool students will have the opportunity to monitor their own growth in college-wide learning. The student will keep his/her learning portfolio and may continue to use the Digication account after graduation. A Three Rivers General Education Assessment Team will select and review random works to improve the college experience for all. Student work reviewed for assessment purposes will not include names and all student work will remain private and anonymous for college improvement purposes. Students will have the ability to integrate learning from the classroom, college, and life in general, which will provide additional learning opportunities. If desired, students will have the option to create multiple portfolios

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COURSE CONTENT:

	9**/1/15 – 9/15/15**
CHAPTER 1	Functions and their graphs Sec. 1.1 – 1.3 (review), 1.4 - 1.9
	9/17/15- 9/24/15
CHAPTER 2	Polynomial and rational functions (review) Sec . 2.2 , 2.6

TEST 9/29/15

	10/1/15 – 10/8/15
CHAPTER 3	Exponential and logarithmic functions (review) Sec . 3.1, 3.2, 3.4, 3.5
	10/13/15 – 10/22/15
CHAPTER 4	Trigonometry Sec . 4.1- 4.8

TEST 10/27/15

	10/29/15 - 11/12/15
CHAPTER 5	Analytic Trigonometry Sec . 5.1 – 5.5
	11/17/15 – 11/24/15
CHAPTER 6	Additional topics in trigonometry Sec . 6.1, 6.2, 6.5

TEST 12/1/15

	12/3/15 - 12/15/15
CHAPTER 9	Sequences, Series Sec . 9.1 - 9.3

Review of the course

FINAL EXAM 12/17/15

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Homework(odd numbers): This is a guide only. Assignments may vary.

Chapter 1:	1.1	p.8	17, 21, 25, 27, 29 review
	1.2	p.19	19-39, 41-51, 69 review
	1.3	p.31	15, 21,43,55,65 review
	1.4	p.44	9, 11,21,25,31, 37-41, 45, 47, 49-59, 71, 75, 93
	1.5	p.56	7-17, 33-37, 55, 57, 71- 81,
	1.6	p.65	11,13,21,25, 35-39
	1.7	p.72	9 -19, 27 - 37, 55-63
	1.8	p.81	7-11, 13-23, 31, 33, 35-41, 43-53, 61
	1.9	p. 90	7-15, 17, 19, 23-29, 37,39, 45-55, 61-65, 73, 75, 79, 83-91
Chapter 2:	2.2.	p. 133	9-13, 19-27, 35-49, 59-63, 77-83 review
	2.6	p. 177	5, 7, 11-15, 25-35, 45-47, 67-69 review
Chapter 3:	3.1	p.208	13, 15, 23, 25, 51, 53 review
	3.2	p. 218	25, 31, 37, 39, 41, 45 49-55 review
	3.4	p.235	17 - 61
	3.5	p.245	33 – 37
Chapter 4:	4.1	p.269	1-47, 51-57
	4.2	p.277	5 - 41, 43-49
	4.3	p.286	5 - 29, 33-37,47-55,57-61,63-71
	4.4	p.296	9-17, 19-31, 33-43, 45-67, 69-73
	4.5	p.306	5, 15, 19-25, 31,35
	4.6	p.317	15, 19, 23,33
	4.7	p.327	5-17, 21-27, 41-45, 109
	4.8	p.336	5-15, 21,23, 27,29
Chapter 5:	5.1	p. 355	7, 11, 13, 21-27, 41, 47, 53, 55
	5.2	p. 362	1-19
	5.3	p.371	5,7, 11-19,39, 41
	5.4	p.379	7- 9, 13-19, 35-39, 41,43
Chapter 6:	6.1	p.408	5,7,9,13,17, 31,41
	6.2	p. 415	5,9,13, 17, 2131,33,35, 37, 39
	6.5	p. 448	5-19, 31-39
Chapter 9:	9.1	p.613	7,9,15, 23,37-41, 49-51, 59, 61, 67,69
	9.2	p.622	5,13,23
	9.3	p.631	7, 9, 17, 23,29,55, 73, 75

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COURSE OUTCOMES:

After the successful completion of the course the student must be able to:

1. Evaluate a function at any given value of x.
2. Find the domain and range of the function.
3. Graph the functions, using the tables, transformations.
4. Graph the piece-wise defined functions.
5. Determine whether the function is even, odd, or neither.
6. Identify local maxima, minima on the graphs of functions, and intervals of increase/decrease.
7. Model with functions.
8. Combine the functions, find their compositions, inverses.
9. Graph polynomials, find their zeroes, the x - intercepts, analyze their end behavior. Factor Theorem.
10. Graph rational functions, find the asymptotes.
11. Perform the operations with complex numbers.
12. Find trigonometric form of a complex number.
13. Evaluate, graph exponential and logarithmic functions.
14. Solve exponential and logarithmic equations, model with exponential and logarithmic equations.
15. Find the angle measure in radian, degree.
16. Find all trigonometric ratios in a right triangle.
17. Find the values of trigonometric functions from the information given.
18. Solve a right triangle.
19. Solve a triangle using the Law of Sines, the Law of Cosines.
20. Find trigonometric functions of real numbers using unit circle approach.
21. Graph the trigonometric functions.
22. Use the trigonometric identities, addition, subtraction, double, half-angle formula.
23. Evaluate inverse trigonometric functions.
24. Solve trigonometric equations.
25. Plot the complex numbers on the complex plane
26. Writer the trigonometric form of a complex number
27. Use sequence notation to write the terms of sequences
28. Use factorial notation.
29. Use summation notation to write sums.
30. Model the real-life problems with arithmetic, geometric sequences.

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