



Fall 2017

Precalculus

MAT*K186, CRN-33294

Class Hours: Tuesday & Thursday from 10:00 - 11:40 am

Class Location: Electric Boat – New London

Class Textbook: Precalculus, Graphs and Models, by Coburn and Herdlick

Instructor: Name: Mark Vesligaj
Office: C128
Office Hours: Monday from 4:15 – 5:15 pm
Tuesday from 12:00 – 1:00 pm
Wednesday from 4:15 – 5:15 pm ...
...or by appointment. **Please set appointments in advance.**
Phone: 860 215 9442 (office)
Email: mvesligaj@trcc.comnet.edu (preferred contact method)

Prerequisite: College Algebra (MAT*172)

Course Description:

The 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, introductory sequences and series.

Special Needs:

Any student in the class who may have special needs should feel free to contact me. I am interested in any situation which may impact your ability to be successful in this course. If you are a student with a disability and you believe you will need accommodations for this class, it is your responsibility to please contact one of the college's Disability Service Providers (DSP) as soon as possible. Please note that accommodations cannot be provided until you provide written authorization from a DSP.

College Disabilities Service Providers

<p>Matt Liscum, Counselor</p> <p>(860) 215-9265</p> <p>Room A113</p>	<ul style="list-style-type: none"> • Learning Disabilities • ADD/ADHD • Autism Spectrum • Mental Health Disabilities
<p>Elizabeth Willcox, Advisor</p> <p>(860) 215-9289</p> <p>Room A113</p>	<ul style="list-style-type: none"> • Medical Disabilities • Mobility Disabilities • Sensory Disability

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.

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

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

BOARD OF REGENTS FOR HIGHTER EDUCATION AND CONNECTICUT STATE COLLEGES AND UNIVERSITIES POLICY REGARDING SEXUAL MISCONDUCT REPORTING, SUPPORT SERVICES AND PROCESSES POLICY

Statement of Policy for Public Act No. 14-11: An Act Concerning Sexual Assault, Stalking and Intimate Partner Violence on Campus:

“The Board of Regents for Higher Education (BOR) in conjunction with the Connecticut State Colleges and Universities (CSCU) is committed to insuring that each member of every BOR governed college and university 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 the BOR and each of its colleges or universities to provide safety, privacy and support to victims of sexual misconduct and intimate partner violence.”

United States Department of Education and Office of Civil Rights Title IX Statement of Policy:

“Title IX of the Education Amendments of 1972 (Title IX) prohibits discrimination based on sex in education programs and activities in federally funded schools at all levels. If any part of a school district or college receives any Federal funds for any purpose, all of the operations of the district or college are covered by Title IX.

Title IX protects students, employees, applicants for admission and employment, and other persons from all forms of sex discrimination, including discrimination based on gender identity or failure to conform to stereotypical notions of masculinity or femininity. All students (as well as other persons) at recipient institutions are protected by Title IX – regardless of their sex, sexual orientation, gender identity, part-or full-time status, disability, race, or national origin-in all aspects of a recipient’s educational programs and activities.”

If any student experiences sexual misconduct or harassment, and/or racial or ethnic discrimination on Three Rivers Community College Campus, or fears for their safety from a threat while on campus, please contact Edward A. Derr, the Diversity Officer and Title IX Coordinator:

Edward A. Derr, Title IX Coordinator and Diversity Officer
Admissions Welcome Center * Office A116
574 New London Turnpike, Norwich CT 06360
860.215.9255 * EDerr@trcc.commnet.edu

Academic Integrity: Academic integrity is essential to a useful education. Failure to act with academic integrity severely limits a person's ability to succeed in the classroom and beyond. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by the College. In this class and in the course of your academic career, present only your own best work; clearly document the sources of the material you use from others; and act at all times with honor.

Withdrawal: A student who finds it necessary to discontinue a course must complete a "Withdrawal Request Form" available in the Registrar's office within the time

limits of the semester calendar. Students who do not withdraw, but stop attending will be assigned an "UF" which may impact their financial aid status. The last day to withdraw from classes can be found on the Academic Calendar the college website.

Homework: There will be regular homework assignments for this course. However, the homework will not be collected and graded. It is up to the student to keep up with the assignments and ask questions regarding the homework at the beginning of the following class.

Grading: Your final grade in this course will be comprised of the following components:

Quizzes: There will be short quizzes throughout the semester (approximately one quiz per week). Quizzes will be administered at the beginning of class (or will be a take-home quiz from the homework set). Those students arriving late will not be allowed extra time to complete the quiz.

Exams: There will be three scheduled exams.

Final Exam: There will be a cumulative final exam.

Your final grade in this course is determined by weighting the above three components in the following manner:

Quizzes:	20%
Exams (3):	60%
<u>Final Exam:</u>	<u>20%</u>
TOTAL:	100%

Grading Equivalents:

Your final letter grade will be determined according to the following equivalents:

A: 93 – 100, A-: 90 – 92

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.

RECOMMENDED COURSE CONTENT:

***Review of Functions/Inverse Functions**

- 1.3) Functions, graphs
- 2.1) Analyzing the graph of a function
- 2.2) The toolbox functions and transformations
- 5.1) One-to-one functions, inverse functions

Chapter 6: An Introduction to Trigonometric Functions

- 6.1) Angle Measure, Special Triangles, and Special Angles
 - 6.2) Unit Circle and the Trigonometry of Real Numbers
 - 6.3) Graphs of Sine and Cosine Functions
 - 6.4) Graphs of the Cosecant, Secant, Tangent, and Cotangent Functions
 - 6.5) Transformations and Applications of Trigonometric Graphs
 - 6.6) The Trigonometry of Right Triangles
 - 6.7) Trigonometry and the Coordinate Plane
 - 6.8) Trigonometric Equation Models
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TEST #1

Chapter 7: Trigonometric Identities, Inverses, and Equations

- 7.1) Fundamental Identities and Families of Identities
 - 7.2) More on Verifying Identities
 - 7.3) The Sum and Difference Identity
 - 7.4) The Double-Angle, Half-Angle and Product-to-Sum Identities
 - 7.5) The Inverse Trig Functions and Their Applications
 - 7.6) Solving Basic Trig Equations
 - 7.7) General Trig Equations and Applications
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TEST #2

Chapter 8: Applications of Trigonometry

- 8.1) Oblique Triangles and the Law of Sines
- 8.2) The Law of Cosines; the Area of a Triangle
- 8.5) Complex Numbers in Trigonometric Form
- 8.6) De Moivre's Theorem and the Theorem on n th Roots

Chapter 10: Analytic Geometry and the Conic Sections

- 10.1) A brief Introduction to Analytic geometry
- 10.2) The Circle and the Ellipse
- 10.3) The Hyperbola

10.4) The Analytic Parabola

10.5) Nonlinear Systems of Equations and Inequalities

TEST #3

Chapter 11: Additional Topics in Algebra (time permitting)

11.1) Sequences and Series

11.2) Arithmetic Sequences

11.3) Geometric Sequences

FINAL EXAM 12/12/2017

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

Chapter 1: 1.3 p.43 9, 11, 15, 19-29, 57-67 99, 105 review

Chapter 2: 2.1. p. 114 7-25 review
2.2 p. 131 11-21, 29,31 review

Chapter 5 5.1 p. 418 9 15, 27, 39-45, 47, 49, 53-57 review

Chapter 6: 6.1 p.522 7 - 13, 19, 21, 27-35, 41-47, 51-55, 57-61, 63-83
6.2 p. 537 7-13, 19-27, 29-35, 37-43, 45-51, 53-65, 71-77, 79-83
6.3 p.556 7-19, 21-31, 41-47, 51, 53, 57
6.4 p.572 7-15, 19-25, 29-31, 33 – 37
6.5 p.590 7-15, 23, 25
6.6 p. 604 7-21, 43-57
6.7 p.618 7,9,13, 15, 21, 27, 33-63, 65, 69, 73, 75, 77, 81, 85
6.8 p. 628 7

Chapter 7: 7.1 p. 659 7-23, 25,27, 29, 35-37, 39,41, 45-49, 51-55
7.2 p. 666 7 - 23
7.3 p.676 7-33, 35, 39,43,45,47
7.4 p.688 7-19, 23-29, 31, 33, 37, 39, 45-51
7.5 p.706 7-11, 17-21
7.6 p.718 7, 9, 15-27, 29-35, 47- 61
7.7 p.728 7,10,13,15,17,19,21

Chapter 8: 8.1 p. 754 13-21, 33, 35
8.2 p. 767 7, 9, 21-27
8.5 p.810 7-13, 19, 21, 27, 35, 37, 39
8.6 p.819 7, 11

Chapter 10: 10.1 p.967 9, 15, 19
10.2 p.979 9,13,15,19,21
10.3 p.994 13,23,29, 33
10.4 p.1003 9,15,19-23
10.5 p.1015 7,11,13,19,21,25

Chapter 11: 11.1 p.1086 7, 11, 19, 33-37, 41-45, 57
11.2 p. 1096 7,11,15, 19, 31, 37, 43
11.3 p. 1108 9,11,19, 25,33, 39, 47