

Syllabus

Math 186 – Precalculus

Fall 2010

June Decker

4 Credit Hours

course number 30186 meets M/W 10-11:40 am in D219

course number 30759 meets M/W 1-2:40 am in D211

You may come to either or both class meetings.

Office: C124

Office Phone: 860-892-5747 email: jdecker@trcc.comnet.edu

Office hours: Mondays 12-1; Wednesdays 9-10, 12-1 and by appointment.

Class website available on <http://my.comnet.edu> . Click on VISTA BLACKBOARD

Tutor Center (TASC) services are free to TRCC students. TASC is next to the library on the first floor of C-wing 860-892-5713

Course Description

This course prepares students for the study of Calculus I. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

Prerequisite: successful completion of Intermediate Algebra or appropriate score on math Placement Test

Required Materials

Textbook: Precalculus, 5th ed. by James Stewart, Lothar Redlin, and Saleem Watson

Graphing Calculator (recommend a TI- 83, 84 or 89 or TIInspire) or other graphing utility such as virtual calculator on your PC. Please check with your program coordinator or me to be sure you purchase a calculator that you can use in your other classes.

Recommended: Web Assign student access code that came with the purchase of a book in our bookstore. Free trial for 14 days. www.webassign.com

Useful Internet addresses

Vista Blackboard for course information/communication and lists of other websites:

<http://my.comnet.edu>

Grades

Final grades for the course are available to students after Dec 26, 2010 (some sooner) on <http://my.comnet.edu> (this is called "banner"). You have many ways to earn points in this class, but everyone must take the final exam. Determination of your grade will be based on the following:

Tests. There will be four tests worth 100 points each and a comprehensive final exam. The mandatory final exam is worth 400 points. You may retake the test on which you earned the lowest grade at the end of the semester on the day of the final, on Dec 6 from 8-10:00 or by prior arrangement. There will be no makeup tests prior to Dec 6. If you miss two or more tests, you may make up one, but the others will be a zero. Scoring 50% or better on the final exam is necessary but not sufficient to pass the course. If you score less than 50% on the final exam, you will receive an F for the course, regardless of your other grades.

The problem set you receive the first day of class is due Sept 6 and is worth 15 points. Chapter review problem sets for chapters 1-8 will count for 15 points each. The problem sets are due at the beginning of class, the day of the test. Late problem sets will lose 5 points for each calendar day they are late, whether you are in class or not. If you cannot come to class to hand in the problem set, you may fax it to 860-886-7841 attn: June Decker or email it to me at jdecker@trcc.comnet.edu (if you scan it, try to save the scan as a PDF file, otherwise my mailbox fills up and rejects incoming mail.)

The final exam review problem set is worth 400 points, and is due at the final exam.

Project on analyzing fitting lines to data (see pages 239 and following at the end of chapter 2) will count for 50

Discover Project on Predator Prey modes in chapter 5 page 432-433 is will count for 30 points.

Homework: Please do the homework in order to learn the material. There are a total of 37 assignments. How well you do the homework will be reflected in your performance on tests. You can earn credit for homework if you do it on WebAssign. If you earn a 70% or better on a Webassign homework assignment, it will count for 3 points, so you can earn up to 105 points

Entries to Vista Blackboard discussion board asking or answering math problems or calculator use questions posed by your classmates: 2 points for posing a question, and 5 points for answering the question. Advice on how to learn math or study aids/websites are also rewarded. If the entry contains particularly good thinking or insight, or addresses a particularly difficult problem, I will give more points. You may earn up to 50 points for substantive discussion board participation. Points are awarded at my discretion.

You have the opportunity to earn 1210 points this semester, but you need only earn 1000 of these points to have a perfect score for the semester. In other words, if you earn 1000 points, your semester average will be 100% . You may pick and choose which grades you will work for. Plan how you expect to earn your 930 points for an A, or 900 points for an A-.

Your final grade will be determined by adding all the points you have accumulated, and dividing by 10

Grade Equivalents

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| 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 | 0-59 |

A passing grade of D- or better is required to go on to Calculus 1. However, mastery of the material in Precalculus is suggested before you enroll in Calc 1.

Withdrawal Policy A “drop or withdrawal” from the course will be accepted through the 10th week of classes in accordance with the designated withdrawal deadlines. Students need to fill out the special withdrawal form available at the registrar’s office. **The Instructor does not need to sign the withdrawal form.** Withdrawals are processed only through the Registrar’s Office at (860) 892-5756 or the Subase at (860) 445-5575. Students who do not withdraw, but stop attending will be assigned an "F". **If you cannot attend class for a period of time, please contact me so we can try to make arrangements for you to possibly finish the course.**

Disabilities Statement If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact the disabilities Counseling Services at 383-3240. To avoid any delay in the receipt of accommodations, you should contact the counselor as soon as possible. Please note that I cannot provide

accommodations based upon disability until I have received a letter from the disabilities counselor.

Emergency closings are posted on the college website: www.trcc.commnet.edu, and recorded on the college phone 860-886-0177, and broadcast on TV or radio. You can also sign up for at texted message from our college website. In the past, college closing have been announced by 6:45 am. I will hold class when the college is open. However, I realize that different snow conditions exist in different towns, so you must make your own decision if it is safe to travel or not. For cancellation due to storms or illness, I will post a class cancellation notice on VistaBlackboard, so be sure to check Vista to see if classes or office hours are cancelled.

Academic Integrity: You are expected to do your own work on exams and quizzes, without any written notes or texts. You may receive help and work collaboratively on homework and other grading opportunities provided you understand the work you submit in the end. I will enforce college policies on academic dishonesty. Specifically, I will assign a zero for any test, exam or quiz on which a person has been dishonest, and I will notify the dean's office of the offense.

Class Schedule and Homework Pre-Calculus Math 186 Fall 2010 Professor Decker

If you do homework on www.Webassign.com, it is worth one test grade. Updated 10/4/10

| Class date | Section | homework |
|-----------------|---|--|
| August 30, 2010 | Chapt 1.1-1.5 Overview of ch 1 including solving equations and inequalities with absolute value, rational expressions, and radicals. Simplifying rational and negative exponents, and rationalizing denominators. We will do problems on handout during class 8/30/10 and 9/1/10 | PROBLEM SET for CH 1 is the chapter 1 test in the text book on pages 135-136 but not #7e,15,17f or 18. DUE SEPT 8 in class (Late papers marked down 5 points each calendar day late). |
| Sept 1 | Ch 1.6-1.11 Overview continued. Word problems | 1.6 page 68-74: #22, 30, 31, 38, 49, 53, 60, 66, 75 Go to www.webassign.com Login:student ID# (drop the leading zeros) , |

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| | sections 1.6 Variation problems section 1.11 | institution is TRCC.MOHEGAN password is ILOVEMATH do homework section 1.6 |
| Sept 8 | 2.1 2.2 | 2.1 #15, 17, 21, 23, 29, 35, 37, 40, 41, 43,49, 52, 65, 67, 69 2.2 #1,13,20, 23, 25, 31, 33, 41, 49, 53, 55, 57, 83, 89 |
| Sept 13 | 2.3 Focus on Modeling pp 239 ff | 2.3 # 1,5,10,13,15,17,19,26,30,31,33 Do Project 1:see handout from class Due Sept 29 |
| Sept 15 | 2.4 2.5 | 2.4 #1,2,5,7,8,12,14,16,17,23,25,27,29,33,40,61,62, 63, 64,74 2.5 # 2,11,13, 39, 42,4,8,51,53,60,64,66 |
| Sept 20 | 2.6 2.7 | 2.6 # 2,6,10,12,14,20,22,24,26,30,32,34,36 2.7# 3,6,8,17,18,21,23,24,26,31 |
| Sept 22 | 2.8 review | 2.8#2,17,19,24,31,36,39,41,53,51,56,64,71,73,76,78 Problem set for chapter 2 due Sept 27 in class. Problem set is available on Blackboard Vista at http://my.comnet.edu |
| Sept 27 | Test Ch 1 and 2 | To review for test, see Vista Blackboard, Also do chapter tests in textbook. |

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| Sept 29 | 3.1 3.2 | 3.1 # 5,6,8,1,39,47,56,58,99 3.2 #1,21,37,43,51,55,60,64,66 |
| Oct 4 | 3.3 3.4 3.5 | 3.3# 5,8,11,39,47,56,58,99 3.4# 1,7,11,16,24,26,34,40,44,45,46,47,63,80 3.5.5# 3,9,29,35,37, 59,60,68 |
| Oct 6 | 3.6 | 3.6 #11,13,15,17,22,33,37,41, 50,54,58,70,80 Ch 3 problem set due October 13 |
| Oct 11 (Columbus Day holiday) | 4.1 4.2 Begin 4.3 | 4.1 #19,22,24,25,26,30,32,38,39,40,64,66, 69,74,75,78. 4.2 #3,4,5,9,10,15,16,17,19,21,23,25,31,33,35,41- 47,49,63,78,81 |
| Oct 13 | 4.3 4.4 4.5 | 4.3 p. 357 #1-9 odd, 8,10,12,13,15,16,27,29,31,38, 39,41,43,45,49,63 4.4 p. 366 #3,5,7,11,13,19,21,23,25,27,35,39,43, 45,47, 49,51,52,57,67,73 4.5 p 379 # 1,3,5,6,7,8,11,15,18,19,21,24,33,35,40 Problem set ch 4 due on Oct 20 |
| Oct 18 NO CLASS NO OFFICE HOURS | NO CLASS Review problems for the test on ch 3 and 4 I will be in my office on Tuesday from 8AM till 1:30PM on OCT 19 if you wish to make an appointment | NO CLASS To prepare for test, do problem sets and Do the Chapt 3 and 4 tests from text on p. 319, ch 3 test #1-7,9 p. 385, ch 4 test #1, 3-8 and Chapter Review p 384 #77,85 |
| Oct 20 | Test Ch 3 and 4 | TEST DAY ch 3 and 4 |
| Oct 25 | 6.1 Angle measure 6.2 Right Triangle Trig 6.3 Trig Functions of | p. 474 #3,3,7,13,15,17,21,26,41,43,51,53, 67,70,76,84 p. 484 #1,3,5,9,11,13,15,27,33,45,53,68 p. 495 #1,3,5,9,11,13,15,27,33,45,53,68 |

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| | angles | |
| Oct 27 | 6.4 Law of Sines 6.5 Law of Cosines | p. 506 #1,7,17,27,34,37 p. 513 # 3,7,15,21,40,44,49 Ch 6 problem set due Nov 3 |
| Nov 1 | 5.1 5.2 | p. 406 #7,9,13,17,19,21,23,27,33,37,41,45,51-54 p. 416 # 5-13 odd, 19,27,29,37,39,41,43,49,51,53,55,63,65,79-84 |
| Nov 3 | 5.3 5.4 | p. 429 #15-31 odd, 32,37-47 odd, 69,71,75,76,77 p. 441 #1-15 odd, 55 |
| Nov 8 | Ch 5.5 | p. 451 # 1,5,11,13,19,28,31,33,34,40,44 Ch 5 Problem set due Nov 10 |
| Nov 10 | Chapter 5 and 6 REVIEW Do the Predator Prey project by answering the questions on Pages 432-433 in the text. Due on Dec 2. | Review problems for test: p. 458 ch 5 test: #1-7,10,12 also graph $y=-5\cos(1/3(x-60^\circ))+3$, sketch the graphs of all six trig functions. p. 520 Ch 6 test: #1-14, 16,17 |
| Nov 15 | Test Ch 5 and 6 | |
| Nov 17 | 7.1 7.2 | |
| Nov 22 | 7.3 7.4 | |
| Nov 25 | HAPPY THANKSGIVING | |
| Nov 29 | 7.5 | |
| Dec 1 | Test ch 7 (plus selected problems chosen directly from previous 3 tests – so study your old tests) | |
| Dec 6 | Solve systems of equations by matrices using row reduced Echelon form, Cramer's rule and by determinants. (part of chapt9) | |
| Dec 8 and | Review days | |

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| Dec 15 | Cumulative FINAL EXAM | |
| | Grades available at http://my.comnet.edu | Or by emailing me at jdecker@trcc.comnet.edu |
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