

# Precalculus Overview

M W 4:30 pm – 7:00 pm in A106  
Santiago Canyon College, Math and Science Division

**Instructor:** Kathy Moore      **E-mail:** [moore\\_kathy@sccollege.edu](mailto:moore_kathy@sccollege.edu)  
**Office:** U84      **Phone:** 714-628-4923      **Website:** [www.sccollege.edu/kmoore](http://www.sccollege.edu/kmoore)  
**Office Hours:**      Monday      1:00 – 1:30 (**U-84**); 4:00 – 4:30 (**A106**); 7:00 – 8:00 pm (**U-84**)  
                                 Tuesday      1:00 – 1:30 (**U-84**)  
                                 Wednesday      1:00 – 1:30 (**U-84**); 4:00 – 4:30 (**A106**); 7:00 – 8:00 pm (**U-84**)  
                                 Thursday      1:00 – 1:30 (**U-84**)

**Course Description and Purpose:** Advanced algebra topics, including the study of polynomial, rational, trigonometric, exponential and logarithmic functions, as well as analytic geometry, will be covered in preparation for calculus. The graphing calculator will be used in this course to explore and reinforce concepts.

**Math 170 Student Learning Outcomes:** As a result of completing Mathematics 170, the student will be able to:

1. Use algebraic, numerical, and graphical process to manipulate and analyze equations, inequalities, and functional relationships.
2. Formulate and analyze mathematical models for a variety of real-world phenomenon and use technological tools to determine the veracity of the model.

**Prerequisite:** Successful completion of Math 160 (grade of C or better) or equivalent skills as measured by a satisfactory score on the Math Level 4 Exam in combination with a course equivalent to Math 160.

**Required Course Materials:**

**Text:** Precalculus – Mathematics for Calculus by Stewart, Redlin and Watson; Brooks/Cole publishers, **6<sup>th</sup> edition.**

**Calculator:** a graphing calculator such as the TI83 or TI84 is preferred.  
(algebraic calculators such as the TI89 and cell phone calculators are not allowed)

**Software:** *Webassign* software is included as a bundle with the purchase of the book, or can be purchased as a stand alone kit from the bookstore or online. Note, if you purchase *Stand Alone Single Term Access*, you receive an electronic file of the textbook. You could purchase just the software and have the ebook included. Website: <http://www.cengage.com/ewa>

\*\*\* \*\* Your section id code: **sccollege 1415 6832** \*\*\* \*\*

**Accommodations for Disabilities:** Students with verifiable disabilities who want to request academic accommodations are responsible for notifying me and Disabled Students Programs and Service (DSPS) as early as possible in the semester. To arrange for accommodations, contact DSPS at (714) 628-4860, (714) 639-9742 (TTY) or stop by the DSPS Center in E-105.

**Math Study Hall (MaSH) Registration:** The MaSH is a service provided by SCC that gives students a chance to supplement the learning done in the classroom. There will always be a math faculty member, instructional aides, and student workers on duty to assist you when needed. There are also computers in the room on which students can access mathematical software or do work for their on-line math class. The MaSH is located in rooms U-78, 79, and 80 (entrance in U-80).

To use the MaSH, you must register for **Math 093L (section 54134)**. This is a .2 unit class. You can register for the MaSH when you register for classes or just go to admissions on the ground floor of the E building. Once registered, you can enter and exit the MaSH at any time during hours of operation. When you enter, you will slide your student ID card or just type in your student ID number at the MaSH sign in computer (no SSN). When you leave, you will sign out the same way. Signing out is very important. You may lose the hours you put in if you do not sign in and sign out appropriately.

Math 093L is a Pass/No Pass class. To receive a “Pass” for the class, you must complete 9 hours during the semester. We track this information through the sign in computer, so it is very important to sign in/out every time you use the MaSH.

**Math Study Hall (MaSH) (U80) Hours:** \_\_\_\_\_

**Attendance:** Please attend class always! Attendance will be taken at each class meeting. The attendance policy outlined in the college catalogue will be followed, so if you miss class more than four times, you may be dropped by the instructor.

Please arrive to class on time and plan to stay for the entire class meeting.

If you must miss class, make arrangements to get class notes and the assignment from another student in the class. Makeup lectures are not given outside of class. You are responsible for all announcements made in class, even if you are absent. If you decide to drop the course and stop attending, it is your responsibility to turn in a drop card to the Admissions Office by Apr 22.

**Student Conduct:** Appropriate conduct is expected in the classroom. Based upon the RSCCD Standards of Student Conduct (also known as the Code of Conduct) you, the student, **will be in violation of the code should you become disruptive in any way, such that you disrupt the teaching of this class. This includes (but is not limited to) excessive talking with your peers and cell phone usage, which is inclusive of text messaging.** Students who violate the Standards of Conduct are subject to disciplinary action which includes, but is not limited to, removal from class, suspension and expulsion. Please refer to the Student Code of Conduct in the college catalogue for details.

**Important Dates:** The last day to drop with a fee refund, the last day to drop without receiving a W grade, the last day to submit a Pass/No Pass application, and the last day to drop and receive a W instead of a letter grade are listed on WebAdvisor. **These dates are strictly adhered to**, so check WebAdvisor periodically to make sure you do not miss any of these important deadlines.

**Homework:** In any math course, it is essential to get “hands on” experience with the concepts. Watching me do problems at the board is easy; you need to do it yourself in order to really learn the material. One important way to do this is by doing your homework. Homework is not to give you busy work or drill. Don't think of your homework as a certificate proving that you have done the assignment. Think of it as an exercise in learning and in reporting what you have learned. Plan to spend at least two hours per one hour of class on your homework. You should be spending 10 hours every week on this class – reading the textbook, doing homework, re-writing notes and studying for tests. Homework is due ready to be discussed by the next class meeting.

Since very little class time is available to discuss homework problems, it is strongly suggested that you get names, phone numbers, and e-mail addresses of other students in the class so that you can discuss homework among yourselves outside of class. It is also recommended that you go the Math Study Hall (U 80) to get help with homework questions. Have your class notes and text in front of you when doing your homework and use them to help with similar homework problems. **Particularly difficult problems may be worked out at the board during the next class after they are assigned.**

Students will be given three different homework assignment sheets corresponding to the material that will be covered on each of the three regular tests. Keep your completed homework in the order it is assigned in a flat, three-prong folder to be handed by the end of class on the day of each test. Each time homework folders are collected, five problems will be chosen and graded, worth two points each, and 5 points will be based on completeness for a total possible of 15 points for each homework folder. Specific instructions on how the homework is to be done are given on each of the homework assignment sheets. **Late homework will not be accepted.**

Homework is available through the on-line software at [www.cengage.com/ewa](http://www.cengage.com/ewa) . This allows you immediate feedback as to whether you got the problem correct. You are allowed to attempt each problem 5 times. If you do homework on-line remember to write out solutions as well to turn in on test days. I will grade homework from paper and pencil sheets only. Please put the book numbers on problems.

Reading the textbook is important. The text has convenient examples throughout the chapter. You should read the text and work these problems – checking solutions as you go, then work the homework problems.

**Student Honesty:** There will be several opportunities for collaborative activities in this class; however, collaborating on class tests or quizzes will not be tolerated. Anyone seeking help from or providing assistance to another student on a test or quiz will receive a zero and a letter will be sent to the Dean of Students. Breaking these rules on a second test or quiz will result in an F for the course. Please see the college catalogue for more details. Homework is expected to be individual work.

Test Rules:                    *No looking at another students' desk or paper*  
    *No sharing of supplies or calculators*  
    *No talking or using cell phones*

<b>Grades:</b> The <b>course grade</b> will be based on:	The <b>grading scale</b> will be:
Homework      45	90% (486 points) for an A
Quizzes        70	80% (432 points) for a B
Tests          300	70% (378 points) for a C
<u>Final Exam</u> 125	60% (324 points) for a D
TOTAL         540	

You must earn at least a C in the course to go on to Math 180.

**Tests and Quizzes:**

- A) There will be 14 in class mini quizzes each worth 5 points. They are only given to students present in class. There are no make-up quizzes for absent or late students.
- B) There will be three 100-point tests. Dates are on the attached schedule; however, the dates may change if the instructor finds it necessary and such changes will be announced in advance in class or through email. Tests are comprehensive.
- C) Tests must be taken on designated days; no make-ups will be given! If an emergency occurs, you must **call me** before the test to tell me that you will be absent. A **one-time** test replacement grade may be used if a test is missed, **only if** I am notified in advance, by substituting the percentage from the final.
- D) A comprehensive final exam will be given. It is worth 125 points. (Wednesday, May 16 in this classroom). A scientific or graphing calculator may be used. The final is worth 23% of your grade so take the time to prepare!

**Cell Phone Policy:** All cell phones and electronic devices should be turned "OFF" (not on "silent," not on "vibrate," not "on") and put away (**out of sight**) during class during the entire class period. I truly believe electronic devices are a distraction to the instructor, to other students, and to the user. My goal is to create the most effective environment conducive to learning. If there is an emergency situation, you must inform me before class begins. If you are addicted to texting, find another class immediately. Laptop computers cannot be used during class unless you get permission from the instructor.

Based upon the RSCCD Standards of Student Conduct, students will be in violation of the code should you disrupt the teaching of this class. This includes excessive talking with your peers and **any** cell phone usage, including texting. Penalties that may be invoked include warnings, probation and suspension from all classes and activities within the district.

Cell phone calculators are not allowed on tests or in class. You will need a calculator (graphing calculator is preferred) for use in this course. You may use your calculator for all homework and tests. There is no sharing of calculators on tests.

**By remaining enrolled, students hereby agree that they will be held responsible for items described in this overview and in the schedule.**

**How to survive this course:**

A) Keep this overview and notify me of any trouble you are having in this course.

B) You are required to read all sections of the text to supplement the lecture because it is impossible to cover all the material in class. Class lectures make more sense if you have read the material before the date on the schedule. Plan also to re-read each section after it is discussed in class.

**C) Do Every Homework Assignment!**

D) Give yourself plenty of time outside of class to review your notes, read the text, work homework problems and study. If possible, set up a study group of 1-5 other students. Studying with others can help you with questions you may find difficult and force you to communicate solutions to other students. The best way to learn a subject is to teach it.

E) Focus on vocabulary!! Don't get behind. Keep a positive attitude. Get help when you need it.

Moore				Math 170 Class Schedule				MW Spring 2012			
Date	Section	Topic		Date	Section	Topic					
Jan	23	Chap 1	Fundamentals	Mar	26	7.3	Formulas				
Feb		2.1	Function	Apr		7.4	Basic Trig Equations				
	25	2.2	Graphs of Functions		28	7.5	More Trig Equations				
		2.3/2.4	Info frm Graphs, ARChange			10.2	Systems of Linear Equations				
	30	2.5	Transformations		2	10.3	Matrices				
		2.6	Combining Functions			Rev					
	1	2.7	1 to 1, Inverses		4	<b>Test 2</b>	1.1 – 6.4, 7.1 – 7.5				
		Focus	on Modeling				<b>Hmwk #2</b>				
	6	3.1/3.2	Quadratic/Poly Functions		9	11.1	Parabolas				
		3.3	Divide Polynomials			11.2	Ellipses				
	8	3.4	Zeros		11	11.3	Hyperbolas				
		3.5/3.6	Complex				Families of Functions				
	13	3.7	Rational Functions		16	11.4	Shifted Conics				
		Rev				10.7	Partial Fractions				
	15	<b>Test 1</b>	Chap 1, 2.1 – 2.7, Modeling, 3.1 – 3.6		18	10.8	Systems of Nonlinear				
		<b>Hmwk #1</b>		10.9	Systems of Inequalities						
20		Holiday	23	12.1	Sequences						
				12.2	Arithmetic Sequences						
22	3.7	Rational Functions	25	12.3	Geometric Sequences						
	4.1	Exponential Functions		Chap 6	Right Triangle Trig						
27	4.2	Natural Exp'l Function	30	Rev							
	4.3	Logarithmic Functions	May	2	<b>Test 3</b>	1.1 – 6.4, 7.1 – 7.5, 10.3, 10.7 – 11.4, 12.1 – 12.3					
29	4.4	Laws of Logarithms				<b>Hmwk #3</b>					
	4.5	Exp and Log Equations		7	13.1	Finding Limits					
Mar	5	Modeling			13.2	Finding Limits Algebraically					
	5.1/5.2	Unit Circle/Trig Functions		9	12.5	Mathematical Induction					
7	5.3	Trig Graphs			12.6	Binomial Theorem					
	5.4	Trig Graphs		14	Review						
12	5.5	Inverse Trig and Graphs									
	5.6	Modeling Harmonic Motion		16	<b>Final</b>	Comprehensive					
14	7.1	Trig Identities									
	7.2	Formulas									