

Instructor

Randy Scott
Office: SC-122
Phone: (714) 628-4947
email: scott_randy@sccollege.edu
website: www.sccollege.edu/rscott

Office Hours, SC-122

M: 1215-1315
T: 1600-1650
W: 1115-1230
Th: 1530-1650

Prerequisites

Successful completion of Math 060 or Math 061 or equivalent skills (as measured by a satisfactory score (26) on the math level 2 placement exam in combination with a course equivalent to Math 060).

In addition to this, you will need the desire to learn, the willingness to work hard, and the intestinal fortitude to not give up until you achieve your goal.

Attendance

Be in class, on time, each and every day. Attendance comprises a small part of your course grade and missing class will adversely affect your course grade. From page 21 of the 2011-2012 SCC Catalog: "A student may be dropped for excessive absences when the total hours of absence exceed 10% of the total scheduled hours of class." For Spring 2012, this means I will drop you for excessive absence if you miss more than 3 class meetings.

Withdrawals

If you decide to drop this class, it is *your responsibility* to follow the correct procedures. The last day to drop this class with no record of participation is February 5, 2012, and the last day to drop this class with a W grade is April 22, 2012. Again, it is *your responsibility* to be aware of and to follow the correct procedures.

Exams

Exams are *tentatively* scheduled for February 15, March 14, April 16, and May 9, 2012. I reserve the right to change the date to reflect the progress we make in the class, but I promise to always give you at least a one week notice before an exam.

Quizzes

A short quiz will be given on the average of once each week. Some quizzes will be at the beginning of the class time, some in the middle, and some at the end of the class time.

There are no make-up quizzes given for any reason. I will drop your two lowest quiz scores at the end of the semester.

Homework

Doing work outside of class time provides the essential practice needed for success in mathematics. Plan to spend at least **three** hours outside of class for each hour in class. These three hours may include reviewing your class notes, reading the textbook, working on the assigned problems, reviewing older homework assignments.

Homework assigned for each day is to be completed by the following class meeting. Homework will be collected on a random basis and scored. You will receive full credit if you attempt all the assigned problems. Finally, late homework will not be accepted for any reason.

Final Exam

The final exam will be administered during the last regularly scheduled class meeting: Wednesday, May 16, 2012. No early or late finals will be given.

Grades

Your grade in this class is computed using a weighted average with the following category weights and letter grade assignments with p being your class percentage and l being the letter grade:

Exams 50%	If $p \geq 90$, then	$l = A$
Quizzes 110%	If $80 \leq p < 90$, then	$l = B$
Homework 10%	If $70 \leq p < 80$, then	$l = C$
Attendance/Lab 10%	If $60 \leq p < 70$, then	$l = D$
Final Exam 20%	If $\leq p < 60$, then	$l = F$

For example, to find your exam category score, compute the average (arithmetic mean) of the percentage of each of your exam scores. To find your quizzes category score, compute the average (arithmetic mean) of the percentage of each of your quiz scores. Sum the products of all the category scores and the weight, and the result is your class percentage.

Textbook and Course Materials

The textbook for our class is *Intermediate Algebra*, Sullivan & Struve, 2nd edition, Pearson/Prentice Hall, 2010. ISBN-10: 0-321-56752-8 or ISBN-13: 978-0-321-56752-9 Note: The text (new) comes with the My-MathLab package. There is also a custom printed version of the text for SCC students available at the campus bookstore at a lower cost than the new text listed above.

You will need a (graphing) calculator for this course. We will discuss appropriate use of the calculator in class, and will also continue to develop and improve our arithmetic and algebra skills.

Academic Honesty

Students attending Santiago Canyon College are expected to be honest and forthright in their academic endeavors. To falsify the results of research, to steal the words or ideas of another or to cheat on an examination, corrupts the essential process by which knowledge is advanced. Academic dishonesty is seen as an intentional act of fraud, in which a student seeks to claim credit for the work or efforts of another without authorization, or uses unauthorized material or fabricated information in any academic exercise. We, as an institution, also consider academic dishonesty to include forgery of academic documents, intentionally impeding or damaging the academic work of others, assisting other students in acts of dishonesty or coercing students into acts of dishonesty.

In matters relating to academic honesty violations, the primary responsibility for disciplinary proceedings rests with the instructor and the academic division where the violation allegedly occurred.

Student Conduct

Based upon the RSCCD Standards of Student Conduct (also known as the Code of Conduct) all students will be in violation of the code if you disrupt the teaching of this class. Penalties that may be invoked include warnings, probation and suspension from all classes and activities within the district.

You will behave in a manner that is conducive to the progress of this class. If you are disruptive in any way, I will inform you in a clear, unambiguous manner. As the professor of record for this class, I will determine the standard of behavior.

Your cell phone is to be turned off at the beginning of each class meeting. You are free to turn it on at any time after class has concluded.

Accommodations for Disabilities

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

Math Study Hall (MaSH) Registration

MaSH (Math Study Hall) is a service provided by SCC that gives you a chance to supplement 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 where you can access mathematical software or do work for your on-line math class.

This Math 081 class has a MaSH component that requires each student to complete 16 hours and 16 MaSH assignments. Attendance is tracked through the sign-in computer. When you enter MaSH, you will slide your student ID card or type in your ID number at the sign-in computer (no SSN). When you leave, you will sign out the same way. Signing out is very important. You may lose hours you put in if you do not sign in and out appropriately.

For Spring 2012, Mash is open MTWTh 8am-7:30pm and Sat 9am-3pm.

Student Learning Outcomes

Math Department Student Learning Outcomes:

Upon completion of any course in Mathematics the student will be able to:

1. create mathematical models of real world phenomena, apply those models to make predictions about the behavior of the phenomena, apply appropriate problem solving techniques, and critically evaluate the veracity of the obtained results.
2. clearly communicate their mathematical reasoning and problem solving skills using a variety of formats, diverse technologies, and appropriate mathematical vocabulary and notation.
3. integrate into educational and professional conduct a calm, confident, and ethical approach to mathematical reasoning and problem solving while taking personal responsibility for mathematical successes.

Math 081 Student Learning Outcomes: Upon completion of Math 081 the student will be able to:

1. read, define and apply algebraic and functional vocabulary and symbols.
2. evaluate and perform algebraic operations on rational, radical, exponential and logarithmic expressions.
3. set up and solve word problems involving quadratic, rational, absolute value, radical, exponential and logarithmic expressions.
4. graph linear, quadratic, absolute value and power functions, apply graphing transformations and find the equation of linear functions given appropriate information.

Ch. 1 Linear Equations and Inequalities

Section	Assignment
1.1 Linear Equations in One Variable	38, 41, 42, 45, 47, 48, 51-57 odd, 59-73 odd, 84, 86, 89, 90, 101, 103
1.2 An Introduction to Problem Solving	Part I: 33-42, 43-57 odd Part II: 59-73 odd, 77-83 odd Part III: 44-64 even Part IV: 66-84 even
1.3 Using Formulas to Solve Problems	21-40, 41-55 odd
1.4 Linear Inequalities in One Variable	31-45 odd, 55, 61, 62, 71, 73, 77, 79, 80, 85, 86, 88, 89-92, 111, 113, 117, 118, 121, 122
1.5 Rectangular Coordinates and Graphs of Equations	19, 23, 26, 35, 40, 45, 51, 57, 58, 59-62, 64, 65
1.6 Linear Equations in Two Variables	47, 49, 54, 61, 63, 67, 68, 71, 73, 75, 76, 79, 83, 89, 105, 107, 110, 111, 113, 116, 117, 123, 124, 125
1.7 Parallel and Perpendicular Lines	19-26, 33, 35, 37-40, 43, 45, 53, 55
1.8 Linear Inequalities in Two Variables	17-31 odd, 33, 35, 37-40

Ch. 2 Relations, Functions, and More Inequalities

Section	Assignment
2.1 Relations	incorporated into section 2.2
2.2 An Introduction to Functions	19-27 odd, 31, 33, 35, 37, 39-46, 47, 50, 51-58, 59, 61, 65-70
2.3 Functions and Their Graphs	17-24, 25-41 odd, 43, 44, 47, 50
2.4 Linear Functions and Models	19-37 odd, 39-42, 47, 50, 51, 54, 55, 57, 59, 60, 61, 65, 69, 71
2.5 Compound Inequalities	incorporated into section 2.6
2.6 Absolute Value Equations and Inequalities	41, 43, 47, 53, 55, 67, 71, 73, 87, 89, 101, 107, 108, 115, 116
2.7 Variation	9-13 odd, 15, 18, 21, 22, 23, 29, 30, 33, 35

Ch. 3 Systems of Linear Equations and Inequalities

Section	Assignment
3.1 Systems of Linear Equations in Two Variables	17, 19, 21-24, 27, 29, 35, 39-44, 45, 47, 49, 53, 59, 61
3.2 Problem Solving: Systems of Two Linear Equations Containing Two Unknowns	Part I: 9, 10, 19-25 odd, 27, 28, 39, 41, 43, 45, 46 Part II: 20-26 even, 40, 44, 48, 50, 51, 52
3.3 Systems of Linear Equations in Three Variables	13, 16, 17, 27, 29, 31, 35, 36, 39, 45, 49, 51
3.4 Using Matrices to Solve Systems	
3.5 Determinants and Cramer's Rule	
3.6 Systems of Linear Inequalities	17, 21, 29, 31, 34, 38, 39

Ch. 4 Polynomials and Polynomial Functions

Section	Assignment
4.1 Adding and Subtracting Polynomials	37-51 odd, 57-71 odd, 73, 76, 77, 87, 88, 89, 93, 94
4.2 Multiplying Polynomials	25-35 odd, 37, 41, 47, 48, 53, 57, 61, 63, 71, 73, 77, 81, 91-95 odd, 113, 114
4.3 Dividing Polynomials; Synthetic Division	17-23 odd, 25, 26, 27, 31, 35, 41, 67-73 odd, 75-81 odd, 105, 106
4.4 Greatest Common Factor; Factoring by Grouping	19-65 odd, 67-70, 71
4.5 Factoring Trinomials	Part I: 25-39 odd, 41-56, 57-65 odd Part II: 67-97 odd, 99, 100

continued on next page

4.6 Factoring Special Products	17-95 odd, 97-104
4.7 Factoring: A General Strategy	$3k + 1$, $k = 1, 2, 3, \dots, 20$; 75-78, 83-86
4.8 Polynomial Equations	17-83 odd, 85-88, 101, 102, 103, 104

Ch. 5 Rational Expressions and Rational Functions

Section	Assignment
5.1 Multiplying and Dividing Rational Expressions	17-26, 27-57 odd, 59-65 odd, 81, 83, 95, 96
5.2 Adding and Subtracting Rational Expressions	13-19 odd, 21-24, 35-59 odd, 73, 75, 77-80
5.3 Complex Rational Expressions	$3k + 4$, $k = 1, 2, \dots, 13$; 45, 46
5.4 Rational Equations	15-39 odd, 47, 48, 53, 57, 65, 67, 68
5.5 Rational Inequalities	9-33 odd, 35, 36
5.6 Models Involving Rational Expressions	Part I: 9-18, 21-37 odd Part II: 22-38 even, 39-42

Ch. 6 Radicals and Rational Exponents

Section	Assignment
6.1 n th Roots and Rational Exponents	$3k + 32$, $k = 1, 2, \dots, 33$; 135, 136
6.2 Simplifying Expressions Using the Laws of Exponents	17-81 odd
6.3 Simplifying Radical Expressions Using Properties of Radicals	$3k + 34$, $k = 1, 2, \dots, 33$; 135, 136, 137
6.4 Adding, Subtracting, and Multiplying Radical Expressions	$3k + 14$, $k = 1, 2, \dots, 28$; 101, 103, 104
6.5 Rationalizing Radical Expressions	$3k + 10$, $k = 1, 2, \dots, 26$
6.6 Functions Involving Radicals	9-19 odd, 21-36, 37, 41, 45, 59, 61
6.7 Radical Equations and Their Applications	$3k + 10$, $k = 1, 2, \dots, 16$; 59, 63, 65-70, 93, 95, 96
6.8 The Complex Number System	25-34, 35-42, 43-93 odd

Ch. 7 Quadratic Equations and Functions

Section	Assignment
7.1 Solving Quadratic Equations by Completing the Square	19-43 odd, 53-67 odd
7.2 Solving Quadratic Equations by the Quadratic Formula	39-48, 49-73 odd, 89, 91, 96, 97, 99
7.3 Solving Equations Quadratic in Form	$4k + 9$, $k = 1, 2, \dots, 16$; 75, 79
7.4 Graphing Quadratic Functions Using Transformations	17, 18, 19-25 odd, 27, 30, 31, 34, 35, 39, 40, 41-53 odd,
7.5 Graphing Quadratic Functions Using Properties	23, 33, 37, 48, 55, 57, 59, 75, 77, 83, 84, 89, 91, 95, 96
7.6 Quadratic Inequalities	9-35 odd, 47, 49, 50

Ch. 8 Exponential and Logarithmic Functions

Section	Assignment
8.1 Composite Functions and Inverse Functions	25-35 odd, 37, 40, 47-51 odd, 53, 57, 59-63 odd, 67, 70, 71, 73-91 odd, 103, 104
8.2 Exponential Functions	19, 23-30, 35, 37, 39, 45-50, 55-79 odd, 83, 85, 87, 89, 90, 99, 101
8.3 Logarithmic Functions	23-40, 41-48, 49-61 odd, 77-87 odd, 89-107 odd, 119-122
8.4 Properties of Logarithms	27-38, 47-91 odd, 93-100
8.5 Exponential and Logarithmic Equations	15-47 odd, 65, 67, 69, 71, 75