

Elementary Algebra and Geometry

Fall 2007



Instructor: Crystal Rust

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Office Hours: MW 9:30 a.m.- 10:00 a.m. &
TR 9:30 a.m. – 11:30 a.m.
& F 11:30 a.m. – 12:30 p.m.
Also by appointment.

Subject Area: Mathematics (MATH) 095

Course CRN: 99033

Class Meets: Totally on line. Distance Education.

MY TEACHING PHILOSOPHY:

I sincerely and honestly believe that any body can be successful in learning mathematics given the right learning environment. I disliked mathematics for many years in school. The phobia of mathematics started for me in third grade. When I went to the University of Houston, I was going to major in archeology, because that program required very little mathematics. One semester before I was to graduate with that degree, I took Calculus 1. I had attempted mathematics classes several times before at the university, only to drop the class in disappointment and feeling that my failure to understand math was confirmation of me being totally mathematically illiterate. Then I was blessed with Dr. Murray. He had a way of bringing math alive, as well as, making math understandable to me!! Years of math anxiety and frustration melted away. He gave me the self-confidence to go on, and to believe in my mathematical skills and myself (I went on and almost completed my PhD, that's a lot of self-confidence he gave me). I tell you this because I want you to understand that I was NOT a math genius!! I struggled with it and suffered greatly from math anxiety for **many** years. I do understand. I encourage you to come visit me and let me help you. Please, don't ever feel intimidated or scared to come to me. I gave you my home phone number, because at the present time I do not have an office phone. I look forward to having all of you as my students!!

Computer Skills Advisory:

This course is offered through the Internet only. Students must be computer literate, motivated, disciplined and have the necessary minimum of 10+ hours to spend on the computer each week. Distance education with SDCCD Online is a flexible and convenient opportunity for self-motivated students who have computer skills and feel they can communicate effectively through reading and writing. To successfully complete this online course, students should have skills or feel comfortable in the following areas: navigate in the *WebCT* Browser; navigate in the *Thomson Now* web-based software program; use of an equation editor; handling e-mail, including sending e-mail attachments; basic file management; downloading software; finding information on the Internet; and completing online forms.

Course Description:

Elementary algebra and geometry serves as the foundation for the other math courses and is the first of a two-course integrated sequence in algebra and geometry intended to prepare students for transfer level mathematics. This course covers the real number system; writing, simplifying, solving and graphing of linear equations in one variable; solving linear inequalities in one variable; solving systems of linear equations in two variables; algebraic operations with polynomial expressions and factoring; functions; operations involving rational expressions and related equations; and geometric properties of lines, angles, and triangles.

Student Learning Outcomes:

Upon successful completion of the course the student will be able to:

1. Apply the order of operations in simplifications
2. Translate verbal expressions into algebraic expressions, and simplify them
3. Apply properties of equality to solve linear and absolute value equations and related application problems
4. Solve linear inequalities in one variable
5. Identify functions, use appropriate function notation, determine the domain and range of functions from their formulas and graphs, and apply the algebra of functions
6. Identify the properties of a linear equation in two variables including the slope and intercepts, determine the different forms of the equation of a line, and graph lines
7. Solve systems of linear equations in two variables
8. Perform basic arithmetic operations with polynomials
9. Factor polynomial expressions using a variety of methods and solve polynomial equations by factoring
10. Perform arithmetic operations involving rational expressions and solve rational equations
11. Identify important geometric shapes and properties involving lines, angles, and polygons
12. Apply the appropriate area and perimeter formulas in application problems

Evaluation:

A student's grade will be based on multiple measures of performance unless the course requires no grade.

I.) Homework as enumerated in appropriate outside assignments: These will be listed and enabled in the *Thomson Now web site* (See below).

**Assignments and exams will be announced by scheduling them on the class calendar in WebCT. Then you will go to the Thomson Now web site to access the assignment and/or exam. **

Important: Some assignments will be enabled at certain times. I will not cut off assignments at given times so you can access and practice when you want, in other words, I will not count late assignments against you. HOWEVER, you will be

expected to complete **exams** at given time intervals and dates. So I suggest keeping up with assignments so you do not fall behind and miss an exam!!!

II.) Objective tests and quizzes that measure a student's ability to identify and perform basic mathematical ideas such as identifying geometric shapes and performing basic arithmetic operation with real numbers. The exams will be accessible through the Thomson Now web site, and again, announced via the calendar in WebCT. These will have specific start and end dates, I will usually give you a 72-hour window, 3 days, in which to sign on and take from beginning to end the exam in one session. You will have 1.5 hours to complete the exam from start to finish.

III.) A comprehensive final exam. Also given through the Thomson Now web site at a given time and date. You will have 2.5 hours to complete the final exam.

*** All assignments, homework and exams, are delivered via the web. You will do them through your web account with Thomson Now. ***

The grading scale is:

90 - 100 = A, 80 - 89 = B, 70 - 79 = C, 60 - 69 = D, 0 - 59 = F. Your final course grade is determined by adding up all points and dividing by 4, the **maximum** number of points you can obtain is 400.

Homework average will add up to one exam grade (100 points). The homework average is calculated by the total number of problems you get correct, 1 point each, divided by the total number of homework problems in the semester. For example, if you get 300 correct problems, that's 300 points, and there is a semester total of 400 problems, (I do not know the total number of homework problems as of yet), then your homework average is $300/400 = 75$ points (that is .75 times 100). So your homework score is 75 and that is equal to one exam score.

There will also be **3 major exams** and **one final exam** (each worth 100 points). The lowest exam score, **excluding the final exam**, will be dropped. For example, if you choose not to do the homework assignments, that score will be dropped, because it would be a 0, then your course grade will be calculated by the three major exams and the final. The final counts as **one** exam grade, it does NOT count twice. **You must take the final, it will not be dropped!!!**

Cheating:

Since this is an on line class, proctored exams are not possible. If I do find out you are not doing the work, someone else is doing it for you, you will face the procedures as outlined by Miramar College, which can include receiving an F for the assignment and/or exam. Math builds on itself, if you do not build a strong foundation, you will not succeed in advanced mathematics courses. If you cheat, you are only going to hurt yourself. Please keep academic honesty as a priority. Thank-you for your cooperation!

Attendance:

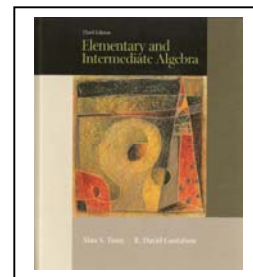
Since this is an on line course, taking daily attendance is not possible. However, please keep in mind that I will be able to track your progress, as well as, when you sign on and off. If two weeks of non-activity occur on your account, I will lock you out of the system until I receive some kind of message from you. You can e-mail me, call me or if you are close to the campus, come and see me. Things happen and I understand that, but please keep in contact if something comes up. If you do not contact me, I will have to drop you from the class.

Accommodations:

Students with disabilities who may need academic accommodations should contact me by email, fax or phone with in the first two weeks of class. You and I can coordinate with the Disability Support Programs & Services (DSPS) department to identify your appropriate accommodations. If you would like further information or have questions about DSPS services, please e-mail them at miradsps@sdccd.edu.

Text and Supplies Required:**TEXTBOOKS:**

Tussy and Gustafson. Elementary and Intermediate Algebra, 3rd ed. Brooks/Cole, 2005, ISBN: 0534419321



Thomson Now Account: You will be able to access this web site at www.thomsonedu.com/thomsonnow.

Use the Course Key E-YTW9ESEQGEN3V. Create an account as a student. When you are asked about access, pick the one that says, “My instructor gave me a key”. Copy the key listed above (highlight and right mouse click on it) then paste it into the correct place on the Thomson Now web site. Finish filling out the other required information and you are done!!! This will create your account inside the course I have created for Math 095 section 99033.

RESOURCE: I own and maintain a personal web site at www.mathdoctor1999.com. On here you will find the actual notes I would have used if this had been an on campus class. Also, you will find more information and links. I will refer to this web site in your reading assignments. For example, if you are reading about factoring, I will put the textbook section and pages, then I will also put the chapter and pages from the **mathdoctor1999** web site notes under the class Elementary Algebra and Geometry. You will also find your exam reviews here.

COMPUTER LABS:

The College has several computer labs available for our students to use. I am not sure of all of their locations and times, but more information can be found at <http://studentweb.sdccd.edu/>.

SUPPLIES:

1. protractor
2. metric and English ruler
3. graph paper
4. Thomson Now account
5. simple calculator (Optional)
6. student solutions manual (Optional)

The course will progress according to the following schedule: The calendar in the Web-CT, as well as, the Thomson Now homepage will be where you will find announcements and scheduling of assignments and exams. The schedule listed below may be altered, so please keep an eye on the calendar in Web-CT.

Course Schedule:

August 27	Week 1:	Review Chapter 1. Focus more on 1.7 and 1.8.	
September 3	Week 2 :	Cover sections 1.7 and 1.8 and test over them.	
September 10	Week 3:	Start on chapter 2	
September 17	Week 4:	Finish chapter 2	
September 24	Week 5:	Start Chapter 3	
October 1	Week 6:	Finish Chapter 3	Take Exam 1 Sections 1.7 & 1.8 and chapters 2 & 3.
October 8	Week 7:	Start Chapter 4	
October 15	Week 8:	Finish Chapter 4	
October 22	Week 9:	Start Chapter 5	
October 29	Week 10:	Finish Chapter 5	Take Exam 2 chapters 4 & 5.
November 5	Week 11:	Start Chapter 6	
November 12	Week 12:	Finish Chapter 6	
November 19	Week 13	Start Chapter 7	
November 26	Week 14	Finish Chapter 7	Take Exam 3 chapters 6 & 7.
December 3	Week 15	Catch up if needed	
December 10	Week 16	Do sections 8.7 and 8.8.	
December 17	Week 17	Final Exam	

Sections to be covered in each chapter:

Chapter 1 An Introduction to Algebra: Sections 1.1 to 1.8, but tested on 1.7 and 1.8 only.

Chapter 2 Equations, Inequalities, and Problem Solving: Sections 2.1 through 2.7, all sections to be tested.

Chapter 3 Linear Equations and Inequalities in Two Variables: Sections 3.1 to 3.7, all sections to be tested. For Homework, graph paper will help you practice!

Chapter 4 Exponents and Polynomials: Sections 4.1 to 4.8, all sections to be tested.

Chapter 5 Factoring and Quadratic Equations: Sections 5.1 to 5.7, all sections to be tested.

Chapter 6 rational Expressions and Equations: Sections 6.1 to 6.8, all sections to be tested.

Chapter 7 Solving Systems of Equations and Inequalities: Sections 7.1 to 7.5, all sections to be tested.

Chapter 8 Transition to Intermediate Algebra: Sections 8.7 to 8.8, these sections to be tested. These sections are an introduction to functions and it is required that you learn some basics about functions in this course. You will do the complete chapter in Math 096.

*****Important** You must send me an email confirmation by September 6, 2007 that you have read and understood the information presented in this syllabus. THANK-YOU!!!

WELCOME To My CLASS!!!