

MAT095_BMAURICE_S/12

ELEMENTARY ALGEBRA (MAT 095) – ROOM D206

T/R 1-2:15

CRN 11260

INSTRUCTOR – BARBARA MAURICE

SPRING 2012

OFFICE: ROOM 206; PHONE 383-5221

OFFICE HOURS: M/W 1 – 2; T/R 12 – 1

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COURSE DESCRIPTION

This course extends the basic algebra skills acquired in MATH 075. The topics include: signed numbers, solving first-degree equations, exponents, polynomials, factoring, graphing, systems of linear equations, inequalities, radicals and scientific notation. (This course does not count towards the minimum requirements for graduation.

PREREQUISITE

Acceptable placement score or Math 075 with a “C” grade or better.

TEXTBOOK

Beginning Algebra by Martin-Gay (Fifth Edition). MyMathLab (www.coursecompass.com) is not required but may be used as a resource.

MAT095 Course Outcomes

1. Evaluate algebraic expressions
2. Determining if a given number is a solution to an equation or an inequality
3. Determining if an ordered pair is a solution to a linear equation in 2 variables

4. Add, subtract, multiply, and divide real numbers and raise a real number to an integer power
5. Add, subtract, multiply, and divide Polynomials
6. Simplify, add, subtract, multiply, and divide Radicals
7. Rules for Exponents
8. Greatest Common Factor (factoring)
9. Factor by Grouping
10. Factor trinomials of the form $x^2 + bx + c$
11. Factor trinomials of the form $ax^2 + bx + c$
12. Factor Perfect Square Trinomials
13. Factor the Difference of Two Squares
14. Factor Completely
15. Converting between Scientific Notation and standard notation

16. Order of Operations (manipulation)
17. Properties of Real Numbers (manipulation)
18. Simplifying Algebraic Expressions (manipulation)

19. Graphing in a Rectangular Coordinate System
20. Graphing Linear Equations by plotting points, using intercepts, and using the Slope-Intercept form
21. Graphing the solution to a Linear Inequality in one variable.
22. Graphing a System of Linear Equations in two variables
23. Rates of change (slopes)
24. Identifying Linear Equations (Linearity)
25. Solving Linear Inequalities in one variable
26. Finding the Equation of a Line (manipulation)

27. Solving Linear Equations in one variable
28. Solving formulas for a specified variable
29. Solving a System of Linear Equations in two variables (two methods)
30. Solving equations with degree 2 or greater by factoring
31. Two forms for the equation of a line (transforming back and forth)

32. Finding an unknown number word problem
33. Solving consecutive numbers (including odd and even) word problems
34. Solving dimension problems using geometric formulas
35. Solving Percent and Mixture problems
36. Solving table problems such as rate, time, and distance
37. Solving linear inequality problems
38. Solving linear equation in two variables problems
39. Solving System of 2 linear equations in 2 variables word problems
40. Solving factorable Quadratic Equation word problems

TENTATIVE SCHEDULE

R	1/19	Review of basics	1.3-1.5
T	1/24	Review of basics	1.6-1.7
R	1/26	Algebraic expressions, add./mult. properties of equality	2.1-2.3
T	1/31	Solving linear equations, problem solving	2.4-2.5
R	2/2	College Professional Day – classes not in session	
T	2/7	Problem solving, formulas, inequalities	2.6-2.8
R	2/9	Review	
T	2/14	TEST #1 (CH. 1-2)	
R	2/16	Coordinate system, graphing, intercepts	3.1-3.3
T	2/21	Slope, slope-intercept form	3.4
R	2/23	Point-slope form	3.5
T	2/28	Systems of equations	4.1-4.2
R	3/1	Systems of equations, problem solving	4.3-4.4
T	3/6	Review	
R	3/8	TEST #2 (CH. 3-4)	
T	3/13	Exponents	5.1
R	3/15	Add./subt./mult. of polynomials	5.2-5.3
R	3/24	Special products, negative exponents, scientific notation	5.4-5.5

3/18 – 3/25 Spring Break

T	3/27	Division of polynomials, radicals	5.6 & 8.1
R	3/29	Review	
T	4/3	TEST # 3 (CH. 5 & 8.1)	
R	4/5	GCF, factoring by grouping	6.1
T	4/10	Factoring $x^2 + bx + c$, $ax^2 + bx + c$	6.2-6.3
R	4/12	Factoring binomials	6.4
T	4/17	Factoring strategy, quadratic equations	6.5
R	4/19	Problem solving, review	6.6
T	4/24	TEST #4 (CH. 6)	
R	4/26	Review	
T	5/1	FINAL EXAM	
R	5/3	Make – up	
M	5/7	Last day to withdraw	
T	5/8	To be used as needed	
R	5/10	To be used as needed	
	5/23	Grades available on web	

Attendance/Homework/Requirements

It is strongly suggested that students make every effort to attend ALL classes. More than three absences during the semester will jeopardize the student's success in the course. Homework will be assigned on a daily basis. All homework assignments must be completed. Students will be required to have a two-section math notebook. One section is to be dedicated to class notes while the other section will be dedicated to homework. The student's math notebook should be available to the instructor at each class. Students are allowed to use a calculator. Cell phones may not be used as a calculator and must be turned **OFF** during class.

Methods of Evaluation/Make-ups

Tests will be announced. Unannounced quizzes may be given at the discretion of the instructor. Tests that are missed for any reason cannot be made up (with the exception of snow conditions). If a student misses one of the first three tests, a make-up test will be given at the end of the semester. A student can also use this make-up test to replace their lowest test grade. Final grades will be assigned according to the following:

<u>CLASS AVERAGE</u>	<u>FINAL GRADE</u>
90 -100	A- / A
80 - 89	B- / B+
70 - 79	C- / C+
60 - 69	D- / D+
Below 60	F

College Withdrawal Policy

Students may withdraw, in writing at the Registrar's Office, for any reason until the end of the 10th week of classes. From the 11th week through the end of the 13th week, a student may withdraw with the signature of the instructor or advisor.

Statement on Disabilities

If you have a question regarding a disability that may affect your progress in this course, please contact one of the college's Disability Service Providers as soon as possible. Chris Scarborough (860-892-5751/Room A-119) generally works with students who have Learning Disabilities, Attention Deficit Disorder, or Asperger's Syndrome (Chris's position is part-time). Kathleen Gray (860-885-2328/Room A-119) generally works with students who have physical, visual, hearing, medical, mobility, or psychiatric disabilities. Please note that an instructor cannot provide disability academic adjustments until a student provides the necessary paperwork from the college's Office of Disability Services to the instructor. Also, academic adjustments take effect when the instructor receives the paperwork from a student- academic adjustments are not provided retroactively.

Classroom Behavior

This is a college course for committed students, and I expect you to maintain proper decorum in the classroom. All cell phones, Blackberries, text messaging devices, etc....must be turned off during class. All MP3 players, laptops, and other electronic devices must be turned off as well. Treat your fellow students and your instructor with maturity and respect at all times. Immature behaviors will simply not be tolerated; if I am forced to address a behavior issue more than once, you will be asked to leave and not return to class.

Communications regarding closings, cancellations, and delays: In the event a decision is made to cancel or delay classes or to close school completely, this decision will be communicated in the following ways:

Radio and Television Announcements will be made on the following stations:

- TV Channel 3 – WFSB

- TV Channel 30 – WVIT NBC Connecticut News 30
- TV Channel 8 – WTNH
- WTIC/WRCH/WZMX Radio – Hartford
- WICH/WCTY/WNLC/WKNL Radio – Norwich/New London
- WSUB/Q105 Radio – Groton/New London
- WINY Radio – Putnam
- WADK Radio – Westerly
- WILI Radio – Willimantic
- WDRC Radio – Hartford

The College's website will also have announcements regarding any delays, cancellations or closings. This information may be obtained by accessing www.trcc.commnet.edu.

The myCommnet Alert Notification System will also be used to deliver important information to students, faculty, and staff regarding weather-related class cancellations. The system delivers both email messages, and text messages over cellular phones to those individuals who are registered. To register, log on to your myCommnet account at [http://my.commnet.edu/](http://my.commnet.edu) and follow the link to myCommnet Alert.

TENTATIVE HOMEWORK ASSIGNMENTS (ASK “BOB”)

“oe” – every other odd

- 1.3 1-83 odd
- 1.4 1-89 odd
- 1.5 1-29 odd, 35-53 odd, 65-79 odd
- 1.6 1- 67 odd, 79-87 odd
- 1.7 1-111 odd
- 1.8 1-89 odd

Chapter 1 Review/ Test as needed

- 2.1 1-69 odd
- 2.4 1-75 odd; pg. 105:1-35 odd
- 2.5 1-39 odd
- 2.6 15-27 odd, 63-67 odd
- 2.7 23-26 all,45,46,53
- 2.8 1-4 all, 15, 17,19,41,43
- 2.9 11-47 odd

Chapter 2 Review/Test as needed

- 3.1 17-31 odd, 39-59 odd
- 3.2 1-41 odd
- 3.3 1-53 odd
- 3.4 1-57 odd
- 3.5 1-35 odd, 39-67 eoo, 69, 71,75,77

Chapter 3 Review/Test as needed

- 4.1 1-5 odd, 9-19 odd, 39-51 odd
- 4.2 1-37 odd
- 4.3 1-37 odd, 51, 53
- 4.4 11, 13, 17, 19, 25-35 odd, 35, 38

Chapter 4 Review/Test as needed

- 5.1 1-103 odd
- 5.2 35-45 odd, 55-69 odd
- 5.3 1-49 odd
- 5.4 1-77 odd
- 5.5 1-75 odd
- 5.6 1-27 odd, 28
- 8.1 1-63 odd

Chapter 5 Review Test as needed

- 6.1 1-71 odd
- 6.2 1-59 odd
- 6.3 7-69 odd
- 6.4 1-8 odd, 13-59 odd
- 6.5 1-95 eoo; pg. 400-401: 1-99eoo
- 6.6 19-75 odd

Chapter 6 Review/Test as needed