**Elementary Algebra Foundations MAT K095, M, W 4:30pm-5:45pm, Room E221**

**Instructor – Greg Hebb** E-mail: ghebb@threerivers.edu Phone: 860-933-5086

**Pre-requisite**:  **Multiple measures**

**Text:** **Elementary and Intermediate Algebra – 5th Edition -- Baratto - Bergman**

**Course description: 3 CREDIT HOURS Elementary Algebra Foundations**

This developmental course prepares students for college level courses. The course develops understanding of number systems, different representations of numbers, operations on numbers, including numbers expressed in scientific notation. The course introduces functions, their graphs, modeling relationships between quantities using functions. Topics also include solving equations and expressions with integer exponents, radicals, solving, analyzing and modeling linear equations, systems of linear equations, Pythagorean Theorem and geometrical formulas are used to solve real world problems.

**Measurements**: Tests – 60%, Attendance / Participation – 20%, Final Exam – 20%

 Grade equivalents: A 93 – 100, A- 90 – 93, 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 below 60, N if the student completed less than 60% of work

**Attendance:** It is very important that you attend **ALL** classes. Your attendance in the class, participation in classroom work, and preparation for each class is required and is essential to your success in the course. Students are allowed a maximum of 2 absences per semester, any more *will* lower your attendance and participation grade. If you absolutely must miss class due to an emergency situation, it is respectful to email me explaining the reason for your absence. You are responsible for getting all missed notes from a classmate, and to be prepared for the next class meeting (this includes taking scheduled tests).

**Note**: **Class BEGINS at 4:30 pm!** It is expected that you will be in your seat and ready to go at the start of the class time. Plan to arrive to class 5 minutes prior to the scheduled start time. Students arriving after the start of class time will lower their attendance and participation grade. Excessive “lateness” will not be tolerated, it is disruptive to both the instructor and the class. Excessive lateness will result in classroom doors being locked at 4:30 pm Also, students leaving class prior to the scheduled end time will lose attendance points for that class unless arrangements have been made with the instructor prior to the class in which the student needs to leave early.

**Attendance / Participation Rubric:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **5 points** | **3 points** | **1 point** |
| **Participation / Class Etiquette** | ***Completely*** engaged in class activities. Is ***never*** on electronic devices, or having side conversations. | ***Usually*** engaged in class activities. Is ***sometimes*** on electronic devices, or having side conversations. | ***Sometimes*** engaged in class activities. Is ***often*** on electronic devices, or having side conversations. |
| **Attendance** | 2 or less absences. | 3 - 4 absences | 5 – 6 absences |
| **Punctuality** | Late 2 or less times | Late 3 - 4 classes | Late 5 – 6 classes |

**Support Services:** Tutorial services. Meeting with me for extra help.

**Office Hours:** Immediately before or after class or by arrangement.

**Class Cancellation**: In the unlikely event that class is canceled, I will post the cancellation on the Blackboard website, along with a notification via email to your trcc email account. In case of inclement weather, check the college website for class cancellations or call 860-215- 9000 for recorded message on the college phone. MyCommNet Alert is a system that sends text messages and emails to anyone signed up in the event of a campus emergency. Additionally, TRCC sends messages when the college is delayed or closed due to weather. All students are encouraged to sign up forMyCommNet Alert. A tutorial is available on the Educational Technology and Distance Learning Students page of the web site(see the link below).

[http://www.trcc.commnet.edu/div\_it/educationaltechnology/Tutorials/myCommNetAlert/MIR3.html](https://www.mail.commnet.edu/owa/redir.aspx?C=a90b94c325424acebc5fc69a405eb4e5&URL=http%3a%2f%2fwww.trcc.commnet.edu%2fdiv_it%2feducationaltechnology%2fTutorials%2fmyCommNetAlert%2fMIR3.html)

**Academic Honesty:** Academic integrity is essential in all aspects of college coursework and learning. I have zero tolerance for academic dishonesty Communication or collaboration of ANY sort is ABSOLUTEY PROHIBITED during any exam. Academic Misconduct is punishable in a number of ways, including a score of a zero on the assignment where the cheating took place, a grade of an F in the course and/or possible censure on your permanent record. All cases of academic dishonesty will be referred to the Academic Dean. Do not let yourself come under the suspicion of academic dishonesty.

**Student EMAILS:** Students are required to have a valid email. If it is necessary for me to email the entire

class, I will use Blackboard and/or COMMNET to do this quickly and efficiently. If you do not regularly use

your TRCC email, please be sure your TRCC email is properly forwarded to the email you regularly

check.

**Homework Expectation:** All assignments will be given in class, along with being posted to the Blackboard website.Our expectation is that you are spending 2-3 hours of reading and doing homework for this class for every “academic” hour we meet in class. We meet 3 “academic” hours per week, therefore you should expect to spend ***at least* 6 - 9 hours per week** on this class, outside of class meetings, every week! Class time is reserved for presentation of material. Homework questions will be answered outside class.

**Cell Phone Policy**: All cell phones must be turned OFF or MUTED before entering the classroom and

properly placed in a bag or pocket (not left on a desk). Any cell phone use is rude and inappropriate, and will not be tolerated. Cell phones may NOT be used for calculators in class. All cell phones must be completely out of sight, especially for all exams. **Any visible cell phone during an exam will result in a 0 for that exam**

**Communication:** Verbal communication with the instructor regarding missed classes, test make-ups, special

accommodations, etc. **must**  be followed up with an email (ghebb@threerivers.edu) as soon as possible. This is essential!

**Accommodations**: Students with learning disabilities should contact the Learning Specialist, Matt Liscum, at 860-215-9265 or via email at mliscum@trcc.commnet.edu as soon as possible to ensure timely accommodations. Students with physical disabilities should contact Elizabeth Willcox at 860-215-9289 or via email at ewillcox@trcc.commnet.edu to facilitate accommodations. All testing accommodations MUST be discussed with the instructor in a timely manner, that is, *at least* one to two class meetings **prior** to any scheduled test for which accommodations are needed.

**Digication:** All students are required to maintain an online learning portfolio in Digication that uses the college template.

**BOARD OF REGENTS FOR HIGHTER EDUCATION AND CONNECTICUT STATE COLLEGES AND UNIVERSITIES POLICY REGARDING SEXUAL MISCONDUCT REPORTING, SUPPORT SERVICES AND PROCESSES POLICY**

**Statement of Policy for Public Act No. 14-11: An Act Concerning Sexual Assault, Stalking and Intimate Partner Violence on Campus:**

“The Board of Regents for Higher Education (BOR) in conjunction with the Connecticut State Colleges and Universities (CSCU) is committed to insuring that each member of every BOR governed college and university community has the opportunity to participate fully in the process of education free from acts of sexual misconduct, intimate partner violence and stalking. It is the intent of the BOR and each of its colleges or universities to provide safety, privacy and support to victims of sexual misconduct and intimate partner violence.”

**UNITED STATES DEPARTMENT OF EDUCATION AND OFFICE OF CIVIL RIGHTS TITLE IX STATEMENT OF POLICY:**

“Title IX of the Education Amendments of 1972 (Title IX) prohibits discrimination based on sex in education programs and activities in federally funded schools at all levels. If any part of a school district or college receives any Federal funds for any purpose, all of the operations of the district or college are covered by Title IX.

Title IX protects students, employees, applicants for admission and employment, and other persons from all forms of sex discrimination, including discrimination based on gender identity or failure to conform to stereotypical notions of masculinity or femininity. All students (as well as other persons) at recipient institutions are protected by Title IX – regardless of their sex, sexual orientation, gender identity, part-or full-time status, disability, race, or national origin-in all aspects of a recipient’s educational programs and activities.”

If any student experiences sexual misconduct or harassment, and/or racial or ethnic discrimination on Three Rivers Community College Campus, or fears for their safety from a threat while on campus, please contact Vicki Baker, the Diversity Officer and Title IX Coordinator: 860-215-9208 (vbaker@trcc.commnet.edu)

# Course Outline, Schedule, Homework (This is a guide only. Assignments and schedules may vary).

**Section Topics HW**

**Ch.0 Review of Prealgebra 8/29**

0.1 Review of fractions p. 10 1 - 91

0.2 Real Numbers p. 19 1 - 69

0.3 Adding and subtracting real numbers p. 28 1 - 73

0.4 Multiplying and dividing real numbers p. 39 1 - 77

0.5 Exponents and Order of Operations p. 48 1 - 75

**Ch. 1** **From Arithmetic to Algebra 9/5 – 9/19**

1.1 Algebraic Expressions p. 63 1, 5, 7, 19, 21, 25, 27

1.2 Evaluating algebraic expressions p. 75 1-21

1.3 Simplifying Algebraic Expressions p. 87 27-67, 81-89

1.4 Solving equations using addition property p. 102 29-36, 71 -77

1.5 Solving equations using multiplication property p. 113 13-34, 59-63

1.6 Combining the rules to solve equations p. 126 1-14, 11-59, 73,75,85,87

1.7 Linear inequalities **Test 9/24** p. 141 25-33, 38-55

**Ch. 2 Functions and Graphs 9/26 – 10/10**

2.1 Formulas and problem solving p. 161 1-21, 31-35

2.2 Sets and set notation p. 175 15-27, 35-43,

2.3 Two-variable equations p. 186 1, 7, 15, 17

2.4 The Cartesian coordinate system p. 198 1-21, 35, 39, 51

2.5 Relations and Functions p. 212 17-21, 33, 3741-47

2.6 Tables and graphs **Test 10/15** p. 226 7-21, 45-49

**Ch. 3 Graphing Linear Functions 10/17 – 10/24**

3.1 Graphing linear Functions p. 256 1, 3, 7, 11, 15, 19, 21, 23

3.2 The Slope of a line p. 279 7-15, 19-41, 47-51, 55, 59,

3.3 Linear equations **Test 10/29** p. 294 1, 3, 5, 11-21, 23-31, 33-43

**Ch. 4** **Systems of Linear Equations 10/31 – 11/12**

4.1 Systems of Linear equations p. 347 5 - 23, 25-31, 33-38

4.2 Solving systems in one variable graphically p. 358 1-9

4.3 Solving systems in 2 Variables **Test 11/14** p. 373 1-35, 51-55

**Ch. 5** **Exponents and Polynomials 11/19 – 11/28**

5.1 Positive Integer Exponents p. 414 1-51

5.2 Integer Exponents and Scientific notation p. 427 1-35, 83, 89, 91, 97, 105, 107

5.3 An introduction to Polynomials p. 436 1 -15, 37

5.4 Adding and subtracting Polynomials p. 444 11, 17, 23, 31, 37

5.5 Multiplying Polynomials p. 455 1-19, 25-37, 49-53, 61-67

5.6 Dividing Polynomials **Test 12/3** p. 465 1-19

**Ch.7 Radicals and Exponents 12/5 – 12/10**

7.1 Roots, radicals, Pythagorean Theorem p. 560 1-9, 59-63

 **Final Exam 12/12**

**Course Objectives and Outcomes.**

At the completion of MAT095, the student will be able to do the following —

**Algebra**

* 1. Use symbols and the language of algebra
	2. Identify algebraic expressions
	3. Use algebra to model an application
	4. Evaluate an algebraic expression
	5. Use linear equations to solve problems

**Functions and Graphs**

* + 1. Solve applications involving geometric figures
		2. Solve motion problems
		3. Use two variable equations in applications
		4. Plot orders pairs
		5. Determine whether a relation is a function
		6. Evaluate a function
		7. Determine function values from a graph

**Linear Functions**

* + - 1. Graph a linear equation
			2. Use the intercept method to graph a linear equation
			3. Write the equation of a line using the slope and the y-intercept
			4. Write the equation of a line through two points
			5. Construct a linear function to model an application
			6. Graph a linear inequality in two variables

**System of Linear Equations**

* + - * 1. Solve systems of equations by graphing
				2. Find and interpret the intersection of two lines
				3. Use the addition method to solve a system of equations
				4. Use the substitute method to solve a system of equations
				5. Graph and solve a system of linear inequalities

**Exponents and Polynomials**

Use exponential notation

Simplify exponential expressions

Classify, determine the degree and determine the number of terms in a polynomial

Add and subtract polynomials

Determine the product of two binomials

**Radicals and Exponents**

Evaluate expressions containing radicals

Apply the Pythagorean theorem

Use the distance formula

Use the product and quotient property to simplify radical expressions