

**Intermediate Algebra MAT K137 CRN#: 10340 T, R 3:30pm-4:45pm, Room E204**

**Instructor – Greg Hebb** E-mail: [ghebb@threeivers.edu](mailto:ghebb@threeivers.edu) Phone: 860-933-5086

**Pre-requisite:** MAT\* K095 or MAT\* K095I with a “B-” grade or better or appropriate placement through multiple-measures assessment process.

**Course description: 3 CREDIT HOURS Intermediate Algebra**

This course cultivates understanding and different representations of functions. The course covers linear, quadratic, exponential, rational and radical functions, equations and expressions and operations on them with emphasis on modeling and solving real world problems.

**REQUIRED MATERIAL:**

- The text is Elementary and Intermediate Algebra 5th Ed., Baratto & Bergman, 2014. You can purchase a hardcover or paperback book with ALEKS access code or just the electronic access kit (which includes ebook). *Note:* we will not be using ALEKS in this course

**CALCULATORS:** A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). It is **REQUIRED** that you bring one to **every class** and **each exam**. Cell phones may **NOT** be used as calculators.

**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

**Tests:** You will have four in-class tests and one 2 hour in-class final exam. Exams are scheduled for the following dates:

- ◆ **Test 1: Thursday 2/15/18**
- ◆ **Test 2: Thursday 3/8/18**
- ◆ **Test 3: Thursday 4/5/18**
- ◆ **Test 4: Thursday 5/3/18**
- ◆ **Final Exam: Thursday 5/10/18**

This may change (but hopefully not), depending on how we are doing. Make-ups for tests will be given only in **EXTREME** circumstances (to be determined by instructor: “vacations” or dentist/doctor appointments are NOT valid reasons to miss an exam, for example) AND if arrangements are made **PRIOR** to the missed exam. Any make-up must be completed prior to the next class meeting day. No test will be administered prior to the date/time of the scheduled test. **No calls/no shows will receive a grade of 0 (zero)** on any exam. Your final exam is a cumulative **2 hour** final exam. You will need to sign up for a 2 hour block on Thursday, 12/14/17, for your final exam. Please plan accordingly.

**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 3:30 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 lose attendance points for that class. 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 3:30 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
<b>Participation / Class Etiquette</b>	<b>Completely</b> engaged in class activities. Is <b>never</b> on electronic devices, or having side conversations.	<b>Usually</b> engaged in class activities. Is <b>sometimes</b> on electronic devices, or having side conversations.	<b>Sometimes</b> engaged in class activities. Is <b>often</b> on electronic devices, or having side conversations.
<b>Attendance</b>	2 or less absences.	3 - 4 absences	5 – 6 absences
<b>Punctuality</b>	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 for MyCommNet 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](http://www.trcc.commnet.edu/div_it/educationaltechnology/Tutorials/myCommNetAlert/MIR3.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 ABSOLUTELY 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](mailto: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](mailto: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](mailto: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 OUTCOMES:**

At the completion of MAT 137, the student will be able to do the following:

### **FACTORING**

- 1) Factor monomials
- 2) Factor polynomials by grouping
- 3) Factor perfect square trinomials, difference of squares, sum/difference of cubes
- 4) Factor quadratics

### **Quadratic Functions and/or Expressions**

- 1) Provide multiple representations of quadratic functions or expressions by hand and using technology
- 2) Determine identifying characteristics of quadratic functions or expressions (e.g., factors)
- 3) Evaluate, simplify, and perform operations on quadratic functions or expressions
- 4) Solve quadratic equations algebraically (e.g., factoring, completing the square, and quadratic formula) and graphically
- 5) Solve real world applications involving quadratic equations and functions

### **Radical Functions and/or Expressions**

- 1) Provide multiple representations of simple radical functions or expressions by hand and using technology, with primary emphasis on square root
- 2) Determine identifying characteristics of radical functions or expressions
- 3) Evaluate, simplify, and perform operations on simple radical functions or expressions
- 4) Solve simple radical equations algebraically and graphically
- 5) Solve real world applications involving radical functions
- 6) Identify imaginary numbers

### **Rational Functions and/or Expressions**

- 1) Provide multiple representations of simple rational functions or expressions by hand and using technology
- 2) Determine identifying characteristics of rational functions or expressions
- 3) Evaluate, simplify, and perform operations on simple rational functions or expressions
- 4) Solve simple rational equations algebraically and graphically
- 5) Solve real world applications involving rational functions

### **Exponential Functions and/or Expressions**

- 1) Provide multiple representations (e.g., tables, graphs, symbols) of exponential functions or expressions by hand and using technology
- 2) Determine identifying characteristics of exponential functions or expressions
- 3) Evaluate, simplify, and perform operations on exponential functions or expressions
- 4) Identify real world applications involving exponential functions

### **Mathematical Practices**

- 1) Make sense of problems and persevere in solving them.
- 2) Reason abstractly and quantitatively.
- 3) Construct viable arguments and critique the reasoning of others.
- 4) Model with mathematics.
- 5) Use appropriate tools strategically.
- 6) Attend to precision.
- 7) Look for and make use of structure.
- 8) Look for and express regularity in repeated reasoning.

**Acceptance Policy:** After reading this syllabus, choosing to stay registered for this course exemplifies your acceptance of the syllabus and all policies and consequences outlined in the syllabus. If you do not agree with any of the terms in the syllabus, you are free to withdraw.

**\*\*The key to success in this course is to attend every class and do all the homework when it is assigned. Ask questions when you have them. You will find it much easier to learn the new topics if you consistently keep up with the course material and homework problems!\*\***

**TENTATIVE Schedule:** *please note: this is subject to change!*

<u>Week of:</u>	<u>Chapter(s):</u>	<u>Topics Covered:</u>
1/17	2.5, 2.6	Functions,
1/23	6.1, 6.2	An Introduction to Factoring, Factoring Special Products,
1/30	6.3, 6.4	Factoring: Trial and Error, Factoring: The <i>ac</i> Method,
2/6	6.5, 6.6	Factoring Strategies, Factoring and Problem Solving
2/13	7.1	Roots and Radicals ♦ <b>Test #1, Chapter 2 &amp; Chapter 6: Thursday 2/15</b>
2/20	7.2, 7.3	Simplifying Radical Expressions, Operations on Radicals
2/27	7.4, 7.5	Solving Radical Equations, Rational Exponents
3/6	7.6	Complex Numbers ♦ <b>Test #2, Chapter 7: Thursday 3/8</b> <b>NO CLASS 3/12-3/18 – SPRING BREAK!</b>
3/20	8.1, 8.2	Solving Quadratic Equations, The Quadratic Formula
3/27-4/3	8.3, 8.4	An Introduction to Parabolas, Quadratic Equations and Problem Solving ♦ <b>Test #3, Chapter 8: Thursday 4/5</b>
4/10	9.1, 9.2	Simplifying Rational Expressions, Multiplying and Dividing Rational Expressions
4/17	9.3, 9.6	Adding and Subtracting Rational Expressions, Rational Equations and Problem Solving
4/24	10.4, 10.7	Exponential Functions, Solving Exponential Equations ♦ <b>Test #4, Chapter 9, 10: Thursday 5/3</b>  ♦ <b>FINAL EXAM – Thursday 5/10</b> <b>***2 hour final exam***</b>