

Immediate Algebra - 10390 MAT* K137 T1 - Tuesday 6:30-9:15 pm - Classroom D221

PROFESSOR: John Riley

Spring 2018

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

REQUIRED MATERIAL: Text Elementary and Intermediate Algebra 5th Ed., Baratto & Bergman, 2014

CALCULATORS: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84).

GRADING / METHOD OF EVALUATION: There will be two non-cumulative exams and a cumulative school standard final exam in this course. You are required to take all exams. Any schedule conflicts should be resolved prior to the examination day.

There will also be 7 quizzes. I will allow you to drop your 2 lowest quiz grades. There is no makeup for quizzes and I will not hold it against you for missing a quiz.

Examinations, quizzes and the final will be math problems which you need to provide an answer and show your work.

Your grade will be determined as follows:

| | <u>Student Average</u> | <u>Final Grade</u> |
|----------------------------------|------------------------|--------------------|
| Two Exams - 20% each (40% total) | 90 - 100 | A/A- |
| Final Exam - 30% | 80 - 89 | B-/B+ |
| Quizzes - 25% combined | 70 - 79 | C-/C+ |
| Class Participation - 5% | 60 - 69 | D-/D+ |
| | Below 60 | F |

ATTENDANCE: Your attendance record will be considered for borderline grades. I look forward to seeing you at each class. Absences will jeopardize success in this course.

PREREQUISITE: MAT* K095 or MAT* K095I with a "B-#" grade or better or appropriate placement through multiple-measures assessment process

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.

HOMEWORK: Assignments are provided in this outline. You are expected to have completed the assignment for the next class session. I will not collect your homework. I will use the quizzes and work in class to judge your progress in the class. Questions on the homework will be discussed at the start of class. I will generally be in the classroom 30 minutes before the start of class to provide help.

OFFICE HOURS: I will be available to meet with the students at the school, as needed.

COLLEGE WITHDRAWAL POLICY: As stated in college catalog

TYPICAL CLASS:

- Meet with students (whoever would like to come) 30 minutes before class starts to answer questions.
- Review material covered last class and homework questions the class has.
- Review Quiz/Test, selected problems.
- Teach concepts for evening. Introduce, explain, and demonstrate the concept.
- Students work on practice problems in groups.
- Quiz on previous weeks material if one is scheduled.
- After you finish the quiz you are done for the evening. This allows the student to take as much time as s/he needs without time pressure.

On Test Days

- Meet with students (whoever would like to come) 30 minutes before class starts to answer questions.
- Test on material listed. Will not include the previous week concepts.
- After you finish the test you are done for the evening. This allows the student to take as much time as s/he needs without time pressure.

CLASS EXPECTATIONS:

- We will be respectfully of everyone in class
- I will be an active participant in your education. I want to see you succeed. I will:
 - Be prepared for class
 - Administer quizzes and tests that are similar to what you are taught and what you were given for homework.
 - Prepare you for the standard school final exam by teaching, reviewing, quizzing, and testing similar problems.
 - Inform you if you are doing below C level work
 - Work with you when situations arise that affect your class work

- You will be an active participant in your education. You will;
 - Come to class ready to learn
 - Do your homework
 - Ask questions when you don't understand something
 - Get help early when you don't understand the material (professor, tutor center, another student, anyone that can help you)
 - Participant in your work groups; do the problems, help others and accept help.

A general time 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.

SUCCESS IN LEARNING THE MATERIAL:

- Read the sections that will be taught next class
- Listen in class, understand the process to execute problems, ask questions, etc.
- Actively participate in class practice; do the problems, work with others, help others and acceptable help
- Do your homework, work on it a few days over the week, don't wait until the night before class
- Get help early if you don't understand something
- If you get something wrong on a quiz or test, understand why and learn how to answer it correctly; most likely you will see it again

WHAT I WILL PROVIDE TO ASSIST YOUR LEARNING:

- Homework assignment solutions
- Quiz and test solutions
- Class practice problems and solutions
- Practice review tests and solutions
- In class review in preparation for tests
- Assist students in their learning before each class.

CELL PHONES: Cell Phones must be turned off and put away during class. If you have an urgent need to have your phone out (children, parents, etc.) this is acceptable. I just don't expect you to be on your phone during class.

CLASS CANCELLATION: The Three Rivers web site provides a full listing of radio and television stations that alert students to school closings and delays. Go to: www.trcc.commnet.edu and click on General Information and Weather Procedures.

If I have to cancel when the school is not closed I will email and/or text. Please provide a number you want to receive texts to and/or an email address you routinely use.

SEXUAL MISCONDUCT CLAUSE:

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."

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).

TITLE IX CLAUSE:

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."

ACCOMMODATION CLAUSE:

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.

ACADEMIC DISHONESTY POLICY:

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.

DIGICATION STATEMENT:

All students are required to maintain an online learning portfolio in Digication that uses the college template. Through this electronic tool students will have the opportunity to monitor their own growth in college-wide learning. The student will keep his/her learning portfolio and may continue to use the Digication account after graduation. A Three Rivers General Education Assessment Team will select and review random works to improve the college experience for all. Student work reviewed for assessment purposes will not include names and all student work will remain private and anonymous for college improvement purposes. Students will have the ability to integrate learning from the classroom, college, and life in general, which will provide additional learning opportunities. If desired, students will have the option to create multiple portfolios.