

# Intermediate Algebra Syllabus

MAT K137 T10 CRN 30807 Fall 2018 Three Rivers Community College, Norwich, CT 06360  
Max Wentworth, Instructor Email: mwentworth@trcc.commnet.edu Phone # (860) 456-1804  
Monday/Wednesday 1:30-2:45PM Room D 215  
Office Hours: Monday/Wednesday 11:00-12:00 Room: D 205-E

## Course Description

Through lecture, discussion of material, and practice, this course continues the development of algebraic concepts and skills. Questions during lecture can be very helpful and are encouraged.

## Method of Evaluation

- 1) Quizzes
- 2) Take Home Assignments
- 3) Tests
- 4) Final Exam

**Quizzes** will be on Wednesdays at the beginning of class. No quizzes may be made up.

**Home Assignments** will be due one week after they are assigned. Students are encouraged to work together on take home assignments, but each student is responsible for understanding the material. Late assignments will be accepted one class after they are due with 5 points taken off. A zero will assigned for any take home which is not handed in before or during the grace period.

**Tests** will be announced one week in advance. If you are going to be absent the day of a test, you must let me know, by email or phone before or on the day of the test. Failure to do so will result in a zero for that test.

The **final** is comprehensive on December 12, 2018..

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.

## Academic Integrity

Academic integrity is essential to a useful education. Failure to act with academic integrity severely limits a person's ability to succeed in the classroom and beyond. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by the College. In this class and in the course of your academic career, present only your own best work; and act at all times with honor.

## Procedure

There will be discussion of homework and new material will be presented each class. Questions are encouraged. Students may be asked to share their knowledge of a topic with the class.

## Attendance

Attendance is strongly encouraged. Also, missed quizzes will receive a grade of zero.

## Required Text

Elementary & Intermediate Algebra; Baratto, McGraw Hill; 2014; 5th edition. ISBN: 9780073384467  
Note: Student will also need a graphing calculator.

**ALL CELL PHONE WILL BE SHUT OFF AND PUT AWAY DURING CLASS**

### Course Evaluation

Tests will constitute 60% of the course grade, take home assignments are worth 10%, quizzes are worth 10% and the final exam is 20% of the course grade.

| Grades | Equivalent | Quality Points | Grades | Equivalent | Quality Points |
|--------|------------|----------------|--------|------------|----------------|
| A      | 93-100     | 4.0            | C      | 73-76      | 2.0            |
| A-     | 90-92      | 3.7            | C-     | 70-72      | 1.7            |
| B+     | 87-89      | 3.3            | D+     | 67-69      | 1.3            |
| B      | 83-86      | 3.0            | D      | 63-66      | 1.0            |
| B-     | 80-82      | 2.7            | D-     | 60-62      | 0.7            |
| C+     | 77-79      | 2.3            | F      | Below 60   | 0.0            |

### College Withdrawal Policy

Students may withdraw, at the Registrar's Office, for any reason on or before December 9, 2018.

### Resources

Free tutoring is available at the Tutoring and Academic Success Center (TASC). Please use the service as needed. Also, students may see me during office hours for extra help.

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.

## 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.”

· 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.”

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)

**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.

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

| Section | Page | Problems (Subject to change by me)  |
|---------|------|---|
| 6.1     | 486  | 5, 9, 13, 23 – 47 every other odd, 63, 67, 71 – 83 every other odd, 95, 97                  |
| 6.2     | 497  | 1 – 67 every other odd, 85  |
| 6.3     | 507  | 17, 25, 33, 41, 49, 53 – 71 every other odd, 83, 85   |
| 6.4     | 517  | 11, 19, 21, 25, 31, 39, 47, 55, 63, 87, 95, 103, 121  |
| 6.5     | 524  | 1, 9, 17, 25, 31 – 79 every other odd   |
| 6.6     | 537  | 1, 9, 17, 25, 33, 41, 49, 57, 59, 61, 71, 73, 77, 83, 89, 93, 109, 113                      |
| 7.1     | 560  | 1 – 13 odd, 25, 27, 29, 33, 39, 41, 49, 53, 55, 57, 59 – 63 odd, 79, 81, 115                |
| 7.2     | 573  | 1, 5, 17, 25, 29, 33, 41, 85  |
| 7.3     | 584  | 1, 3, 7, 9, 13, 15, 17, 19, 21, 35, 39, 41, 45, 47, 49, 53, 57, 59, 61, 91                  |
| 7.4     | 593  | 1, 5, 9, 11, 15, 19, 33, 35, 55, 59, 63   |
| 7.5     | 603  | 1, 7, 13, 23, 31, 33, 37, 41, 49, 57, 65, 73, 79, 85, 87, 99                                |
| 7.6     | 611  | 1 – 9 odd   |
| 8.1     | 633  | 1, 5, 9, 13, 15, 17, 19, 33, 35, 39, 57, 59, 61, 67   |
| 8.2     | 652  | 21 – 51 odd, 57, 59, 61, 63, 67, 69, 71, 73, 79, 81   |
| 8.3     | 665  | 3, 5, 19, 21, 25 – 47 odd, 55   |
| 8.4     | 678  | 1, 5, 7, 9, 13, 15, 25, 29, 41, 43  |
| 9.1     | 698  | 1 – 7 odd, 9, 11, 13, 17, 19, 33, 35, 37, 41, 43, 49, 67, 69, 79, 81                        |
| 9.2     | 710  | 1, 7, 13, 15, 17, 19, 27, 29, 37, 39, 43  |
| 9.3     | 721  | 1, 7, 11, 13 – 35 odd, 47, 55, 57   |
| 9.6     | 762  | 9, 11 – 29 odd, 35, 41, 43, 55, 59, 63, 65, 69, 73, 75, 79, 81, 83, 85, 89, 91, 93, 97, 101 |
| 10.4    | 819  | 1, 5, 7, 11, 15, 19, 23, 25, 27, 29, 35, 39 – 57 odd, 63, 75                                |