# Syllabus
**Three Rivers Community College**
**MAT 137 – Intermediate Algebra**
**Fall 2016**
**Course Registration Number (CRN) – 30169 Sec. T5**
**Monday 6:00-8:45 pm, Main Campus, Rm. D-212**
**For a copy of this syllabus, homework assignments, class announcements, etc, log onto**
**Blackboard/Learn from the MyCommNet link on TRCC's homepage**

**Instructor:**
Matthew L. Burbine
Office: TASC (Tutoring Center), located in C-117, next to the Library
Office Hours: Mondays 5:00-6:00 solely for this class, but I will be available by appointment in the TASC M-R
  11am-6pm, F 11am-4pm
email: mburbine@trcc.commnet.edu
Office Phone: 860 215-9219
Home Phone: 860 599-5463

**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.

**Course Outcomes:**
 The expected outcome for this course is that students who successfully complete it will be able to:
1. Provide multiple representations (e.g. words, symbols, graphs, tables) of linear functions by hand and using technology
2. Determine identifying characteristics of linear functions
3. Model and solve real world applications with linear functions and systems of equations
4. Provide multiple representations of quadratic functions and expressions by hand and using technology
5. Determine identifying characteristics of quadratic functions and expressions (e.g. factors)
6. Evaluate, simplify, and perform operations on quadratic functions and expressions
7. Solve quadratic equations algebraically (e.g. factoring, completing the square, and quadratic formula with rational solutions) and/or graphically
8. Solve real world applications involving quadratic functions
9. Provide multiple representations of simple rational functions and expressions by hand and using technology
10. Determine identifying characteristics of rational functions and expressions
11. Evaluate, simplify and perform operations on simple rational functions or expressions
12. Solve simple rational equations algebraically and/or graphically
13. Solve real world applications involving rational functions
14. Provide multiple representations of simple radical functions and expressions by hand and using technology, with primary emphasis on square roots
15. Determine identifying characteristics of radical functions and expressions
16. Evaluate, simplify and perform operations on simple radical functions and expressions
17. Solve simple radical equations algebraically and/or graphically
18. Solve real world applications involving radical functions
19. Identify imaginary numbers
20. Provide multiple representations (e.g. tables, graphs, symbols) of exponential functions and expressions by hand and using technology
21. Determine identifying characteristics of exponential functions and expressions
22. Solve simple exponential equations algebraically and/or graphically
23. Identify real world applications involving exponential functions and solve graphically

**Prerequisites:**
You must have successfully completed MAT 090, 095, or 095I (or equivalent) with a B- or better, or have an acceptable placement score.

**Required Materials:**
The required text is <u>Elementary and Intermediate Algebra</u>, 5th Ed.; Baratto, et al.; New York, NY; McGraw-Hill 2014. ISBN: 9780073384467.

You will also need to have a graphing calculator. I strongly urge you to get (buy, borrow, or whatever) a Texas Instruments TI 83+ or 84+ calculator, as this model is by far the best-suited one for this class and it is the one I will be using. You are free, however, to use any model or brand you like, but you will responsible for learning its use on your own. You may *not* use a cell-phone calculator.

**Cell Phone Use:**
Please turn off the ringer on all cell-phones before the start of each class. If you have a situation where you absolutely must be able to take a call, please notify me before class and we will come to some agreement.

**Attendance:**
Attendance in classes is strongly recommended. Since this class meets only once per week, if you miss one class it is like missing two (or three) regular classes and you will be at a disadvantage. If you miss two classes, you have missed too much material and you may be at severe risk of failing the class. *I will teach a class only once;* you are responsible for getting the class notes, homework, and any other assignments from another student and completing that work by the next week after any missed class. Also, short unannounced quizzes may be given during the first 15 minutes of class and they cannot be made up.

**Attendance at exams is mandatory.** You will be informed of the dates of tests at least one week in advance. Make-up exams may be given *with my **prior** consent*. If you must miss an exam, please speak with me **before** the date of the exam so that arrangements can be made. Remember, *before the exam it's a reason, after the exam it's an excuse.*

**Grading Policy:**
Throughout the semester there will be three 100-point exams, followed by a cumulative final worth 150 points. Another possible 50 points will distributed among various assignments and projects, quizzes, and class participation. 5 points will be deducted for each class that an assignment or project is late. The final grade will be determined by adding the total points earned and dividing by five. Letter grade equivalents are listed below:

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

**Homework:**
Homework will be assigned each week. *Unless specified otherwise*, I will not collect homework. However, I may give an unannounced quiz at the beginning of class that is taken directly from the homework. It is in your best interest, then, to do <u>at least</u> the assigned problems, if not more. The more you do any math, the easier it becomes. I will try to answer any homework problems at the beginning of each class, but we may have to curtail this to fit our time limits.

**College Withdrawal Policy:**
You may withdraw from this class any time up to and including December 9 and you will receive a W grade on your transcript. However, you <u>must</u> complete a withdrawal form in the Registrar's Office at the time of withdrawal. Any eligibility for refund of tuition is based on the date that the registrar receives the withdrawal form. *If you merely stop attending classes and you have completed what I deem to be an overwhelming majority of the coursework, you will be assigned whatever grade you have earned to date, with any uncompleted work counting as <u>zero</u>.* If you have not completed a sufficient amount of the coursework, I will assign a grade of UF (Unearned F), along with your last date of active participation (more than just attendance) in the course. The UF grade is the same, academically, as an F, but it has other ramifications with financial aid and veterans' benefits.

**Disabilities Statement:**
Three Rivers Community College welcomes students with disabilities. In accordance with federal law, students with documented disabilities may request reasonable accommodations. Students are required to submit a Self-Disclosure Form, provide documentation, and meet with a Disability Service Provider. Services for students with disabilities are coordinated through the Counseling Center. Please note that accommodations cannot be provided until you provide written authorization from a DSP, before the start of the semester, if possible.

<table>
<tr><td>Matt Liscum, Counselor<br>(860) 215-9265<br>Room A113</td><td><ul><li>Learning Disabilities</li><li>ADD/ADHD</li><li>Autism Spectrum</li><li>Mental Health Disabilities</li></ul></td></tr>
<tr><td>Elizabeth Willcox, Advisor<br>(860) 215-9289<br>Room A113</td><td><ul><li>Medical Disabilities</li><li>Mobility Disabilities</li><li>Sensory Disability</li></ul></td></tr>
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**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; clearly document the sources of the material you use from others; and act at all times with honor. A full copy of the college's academic integrity policy is in the school's catalog and in the student handbook.

**Resources:**
The Tutoring and Academic Success Center (TASC) is located in Rm. C-117, next to the Library. TASC provides free **one-to-one or group tutoring** in math as well as in many other subject areas.

In addition to my regular hours in the Tutoring Center, I will make myself exclusively available to students in this class for about two hours per week. Feel free to contact me any time, though, that you have a question.

Finally, one of your greatest resources is each other. I encourage you to get to know your classmates and **exchange contact information**.

**Digication:**
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.

**Class Cancellation:**
In case of inclement weather, check for closure on the college's website or call 860.215.9000 for a recorded message. Chances are, that since I will be here at the college anyway, if the college is **not** closing or cancelling all classes, I **will not** cancel our class. However, in case of inclement weather where the college has **not** closed, check Blackboard/Learn for a cancellation notice for this class. In addition to posting a notice on Blackboard, I will send an email through Blackboard as well. **NOTE:** This email will go to your TRCC student email account. You can set your student email account to automatically forward any incoming emails to any other account that you wish. You should become familiar with this student email account since all future non-emergency communications from the college will be sent this way.

**Course Outline:**
We will cover the following sections of the text; this outline and the homework problems are subject to change, both in content and in order:

| Chapter | Section | Homework Page | Homework Problems (EO = Every Odd, EOO = Every Other Odd) |
|---|---|---|---|
| 6 | 1 | 486 | 9, 13, 31, 43, 59, 67, 71, 79, 82 |
| | 2 | 497 | 1, 6, 13, 23, 25, 43, 51, 53, 59, 60, 65, 69 |
| | 3 | 507 | 17, 22, 43, 53, 54, 57 |
| | 4 | 517 | 2, 15, 21, 31, 32, 38, 40, 59, 60, 78, 82 |
| | 5 | 524 | 1, 17, 23, 31, 43, 44, 53, 59, 77, 81 |
| | 6 | 537 | 5, 10, 21, 35, 45, 53, 58, 72, 90 |
| | | | |
| 7 | 1 | 560 | 1, 9, 14, 38, 49, 50, 57, 58, 69, 72 |
| | 2 | 573 | 1, 2, 10, 26, 27, 41, 49, 71, 72 |
| | 3 | 584 | 1, 6, 11, 20, 33, 58, 61, 67, 75, 89 |
| | 4 | 593 | 4, 8, 9, 16, 26, 27, 40, 48 |
| | 5 | 603 | 1, 5, 6, 15, 23, 33, 46, 53, 65, 69 |
| | 6 | 611 | 1, 5, 11, 15, 27, 36, 40, 51, 55 |
| | | | |
| 8 | 1 | 633 | 1, 8, 11, 22, 34, 35, 46, 55, 63, 83 |
| | 2 | 651 | 2, 5, 8, 21, 29, 46, 55, 72, 73 |
| | 3 | 665 | 1, 2, 3, 9, 14, 21, 25, 35, 55 |
| | 4 | 678 | 1, 3, 6, 23, 31, 35, 37 |
| | | | |
| 9 | 1 | 699 | 2, 10, 18, 25, 36, 48, 67, 74, 79 |
| | 2 | 710 | 2, 6, 11, 17, 28, 34, 37, 44 |
| | 3 | 721 | 1, 11, 23, 33, 36, 43, 55, 60 |
| | 6 | 762 | 2, 3, 18, 25, 51, 61, 67, 81 |
| | | | |
| 10 | 4 | 819 | 1, 2, 3, 10, 25, 37, 51, 59 |
| | 7 | 859 | 1, 2, 14, 21, 31, 39, 47, 53, 57 |
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