

Springfield Technical Community College  
Academic Affairs

Course Number:   MAT 063        Class/Lect      Lab  
 Hours:   1        Hours:             Credits:   1        Dept.:   Mathematics  

**OBJECTIVES/COMPETENCIES**

| Course Objectives                      | Competencies  |
|--|---|
| 1. Quadratic expressions and equations | Upon completion of the unit the student will be able to:<br>1a. Factor out common factors.<br>1b. Factor trinomials of the form $x^2 + bx + c$<br>1c. Factor trinomials of the form $ax^2 + bx + c$<br>1d. Solve quadratic equations by factoring and applications<br>1e. Solve quadratic equation using the quadratic formula<br>1f. The graph of the quadratic equation |
| 2. Rational expressions and equations  | 2a. Simplify rational expressions.<br>2b. Multiply and simplify rational expressions.<br>2c. Divide and simplify rational expressions.<br>2d. Adding, subtracting.<br>2e. Solving rational equations.   |
| 3. Radical expressions and equations   | 3a. Simplify square roots.<br>3b. Add and subtract radical expressions.<br>3c. Multiply and radical expressions; rationalize denominators<br>3d. Solve radical equations.   |
| 4. Functions                           | 4a. Identify a function from a graph<br>4b. Function Notation<br>4c. Evaluating linear and quadratic functions<br>4d. Solving and evaluating literal functions  |