

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

ACADEMIC AFFAIRS

Course Number: ALGB095 Department: Mathematics

Course Title: Extended Algb II Semester: Sp Year: 2011

Course Objective	Competencies
<ol style="list-style-type: none"> 1. Factor out common factors. 2. Factor trinomials of the form $x^2 + bx + c$. 3. Factor trinomials of the form $ax^2 + bx + c$. 4. Factor the difference of two squares. 5. Factor perfect square trinomials. 6. Factor out common factors. 7. Factor trinomials of the form $x^2 + bx + c$. 8. Factor trinomials of the form $ax^2 + bx + c$. 9. Factor the difference of two squares 10. Factor the above forms with a common factor. 11. Solve quadratic equations. 12. Solve applications of quadratic equations. 13. Simplify rational expressions. 14. Multiply and simplify rational expressions. 15. Divide and simplify rational expressions. 16. Add rational expressions. 17. Subtract rational expressions. 18. Solve rational equations 19. Solve rational formulas. 20. Simplify complex fractions. 21. Solve applications of rational equations. 22. Find an equation of direct variation given a point 23. Find an equation of inverse variation given a point 24. Solve application involving direct and inverse variation 25. Find the square root of perfect squares and opposite of the square root of perfect squares. 26. Approximate the square root of a number. 27. Simplify square roots. 	

Course Objective	Competencies
28. Multiply and divide square roots. 29. Rationalize the denominator having one term. 30. Add and subtract (combine and simplify) square roots. 31. Multiply two-term square root expressions together. 32. Solve square root equations. 33. Solve application problems involving right triangles. 34. Write a quadratic equation in standard form, identifying the "a", "b", and "c". 35. Solve quadratic equations by the factoring method. 36. Solve quadratic equations using the quadratic formula. 37. Solve formulas of the types: square roots and quadratic. 38. Solve application problems resulting in quadratic equations. 39. Determine whether the graph of a quadratic equation (a parabola) opens up or down. 40. Find the vertex of a parabola. 41. Given a function, find the function value at a point.	