MASTER COURSE OUTLINE
Prepared By: Salah Abed, Tyler Wallace, Barbara Whitney, Brinn Harberts Date: December 4, 2017

COURSE TITLE
Intermediate Algebra I

GENERAL COURSE INFORMATION

Dept.: MATH	Course Num: 098	(Formerly: MPC 095, 096)
CIP Code: 33.0101	Intent Code: 11	Program Code:
Credits: 5		
Total Contact Hrs Per Qtr.: 55		
Lecture Hrs: 55	Lab Hrs: 0	Other Hrs: 0
Distribution Designation: None		

COURSE DESCRIPTION (as it will appear in the catalog)
This course includes the study of intermediate algebraic operations and concepts, and the structure and use of algebra. This includes solving, graphing, and solving applications of linear equations and systems of equations; simplifying, factoring, and solving quadratic functions, introduction to functions and models; and exponential and logarithmic functions along with applications. Students cannot earn credit for both MAP 119 and Math 098.

PREREQUISITES
MATH 094 or placement

TEXTBOOK GUIDELINES
Appropriate text chosen by math faculty.

COURSE LEARNING OUTCOMES
Upon successful completion of the course, students should be able to demonstrate the following knowledge or skills:

1. Use order of operations to simplify expressions and solve algebraic equations.
2. Use given points or a graph to find the slope of a line and write its equation.
3. Apply various techniques to factor algebraic expressions.
4. Convert word problems to algebraic sentences when solving application problems.
5. Use factoring techniques, the square root method, and the quadratic formula to solve problems with quadratics.
6. Solve systems of linear equations using substitution and elimination methods.
7. Evaluate an expression given in function notation.
8. Use properties of exponents and logarithms to solve simple exponential equations and simplify expressions.

INSTITUTIONAL OUTCOMES
IO2 Quantitative Reasoning: Students will be able to reason mathematically.

COURSE CONTENT OUTLINE

1. Simplify order of operations with absolute value
2. Distribute and combine like terms
3. Evaluate an algebraic expression for given values
4. Solve linear equation with variable on both sides, simplifying required
5. Solve linear equations with rational coefficients
6. Solve a formula/literal for a variable, factoring the variable required
7. Solve equation with infinite or no solutions
8. Solve an age problem
9. Solve a distance problem
10. Find slope from graph
11. Find slope from points
12. Graph equation from line in general form
13. Give equation of line from graph in slope intercept form
14. Give equation from two points in slope intercept form
15. Find the equation of a perpendicular line in slope intercept form
16. Solve a system of equations using substitution or elimination (problem will favor substitution)
17. Solve a system with no solution or infinite solutions
18. Simplify using negative exponent properties
19. Multiply/divide scientific notation
20. Add and subtract polynomials
21. Multiply with FOIL
22. Multiply a perfect square
23. Multiply a sum and difference
24. Multiply a monomial times two binomials
25. Divide with long division and missing terms
26. Factor a trinomial with a!=1
27. Factor a trinomial with a GCF with a = 1
28. Factor a perfect square
29. Factor a difference of squares
30. Factor a sum/difference of cubes
31. Factor a special product with GCF
32. Reduce rational expression
33. Solve a quadratic by using the quadratic formula
34. Evaluate a function at a value
35. Evaluate a function at a variable value
36. Solve a compound interest problem
37. Solve a continuous interest problem
38. Solve an exponential equation
39. Solve a logarithmic equation
40. Solve dual unit conversion problem

DEPARTMENTAL GUIDELINES *(optional)*

This course has been designed based on Seattle Central Community College's MATH 098 Intermediate Algebra. This is the rationale for covering the following intermediate algebra course content: introduction to functions, models, linear functions and their applications, quadratic functions, exponential functions. This includes content on exponents, polynomial arithmetic, linear functions, quadratic functions, exponential functions and graphing.

Course will be Pass/Fail.
Classes taught as a lecture format will use the following grade weights: To earn a P the student must have a weighted average (75% Test, 25% other course work such as quizzes, homework, etc) above 75% and pass both modules of the final exam. Passing a module is defined as a score of 65% or higher.
Classes taught as an emporium format will use the following grade weights: Each unit will be weighted 75% tests, 20% homework, and 5% workbook. Students will earn a passing grade based on units passed and attendance policy as agreed upon by the department.

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DIVISION CHAIR APPROVAL **DATE**