Bossier Parish Community College Master Syllabus

Course Prefix and Number: MATH 098

Credit Hours: 3-3-0

Course Title: Beginning Algebra I

Course Prerequisites: Appropriate placement test score or a grade of "C" or higher in MATH 097.

Textbook(s): Martin-Gay, Elayn. <u>Developmental Mathematics</u>, 3rd edition. Pearson, 2015. ISBN: 9780321936875

Course Description: A beginning algebra course that includes performing fundamental operations on real numbers; exponents; solving linear equations and inequalities; applications; functions; graphing linear equations; slope; systems of linear equations.

Learning Outcomes:

At the end of this course, the student will:

- A. perform operations on real numbers and variable expressions;
- B. solve linear equations and inequalities;
- C. graph linear equations and inequalities;
- D. solve a system of linear equations; and
- E. execute basic rules of exponents.

To achieve the learning outcomes, the student will or will be able to:

(The letter designations at the end of each statement refer to the learning outcome(s).)

- 1. add real numbers; (A)
- 2. subtract real numbers; (A)
- 3. multiply real numbers; (A)
- 4. divide real numbers; (A)
- 5. perform mixed operations on real numbers; (A)
- 6. identify properties of real numbers; (A)
- 7. collect like terms in an algebraic expression; (A)
- 8. demonstrate the distributive property to simplify an algebraic expression; (A)
- 9. solve one step linear equations; (B)
- 10. solve multistep linear equations; (B)
- 11. solve linear equations containing parenthesis; (B)
- 12. solve linear equations containing fractions; (B)
- 13. solve linear equations containing decimals; (B)
- 14. check the solutions of linear equations: (B)
- 15. solve applications problems involving linear equations; (B)
- 16. substitute values into formulas including, but not limited to, perimeter, area, and volume; (B)
- 17. isolate specific variables within formulas; (B)
- 18. solve linear inequalities by graphing on a number line; (B)
- 19. graph linear equations using t-tables; (C)
- 20. graph linear equations from slope-intercept form; (C)
- 21. graph linear equations using the x- and y-intercepts; (C)
- 22. find the slope of a linear equation; (C)
- 23. write linear equations in slope-intercept form; (C)
- 24. write linear equations in standard form; (C)
- 25. identify the domain of a function; (C)

- 26. identify the range of a function; (C)
- 27. determine if the relation is a function; (C)
- 28. evaluating function notation; (C)
- 29. graph a linear inequality; (C)
- 30. solve a system of linear equations by graphing; (D)
- 31. solve a system of linear equations using substitution; (D)
- 32. solve a system of linear equations using addition; (D)
- 33. simplify expressions by using the power rule; (E)
- 34. simplify expressions by using the product rule; (E)
- 35. simplify expressions by using the quotient rule; (E)
- 36. simplify expressions by using the zero exponent rule; (E)
- 37. simplify expressions with negative exponents. (E)

Course Requirements: All students are required to take a comprehensive final examination.

Course Grading Scale:

 $\begin{array}{ll} 90-100 &= A \\ 80-89 &= B \\ 70-79 &= C \\ 60-69 &= D \\ 0 &-59 &= F \end{array}$

Attendance Policy: The college attendance policy is available at <u>http://www.bpcc.edu/catalog/current/academicpolicies.html</u>

Course Fees: This course is accompanied with an additional non-refundable fee for supplemental materials, laboratory supplies, software licenses, certification exams and/or clinical fees.

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COORDINATOR FOR SECTION 504 AND ADA Angie Cao, Student and Disability Services Specialist Disability Services, F-254 6220 East Texas Street Bossier City, LA 71111 Phone: 318-678-6511 Email: <u>acao@bpcc.edu</u> Hours: 8:00 a.m.-4:30 p.m. Monday - Friday, excluding holidays and weekends.

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