Big Bend
COMMUNITY COLLEGE

MASTER COURSE OUTLINE

Prepared By: Date: November 6, 2017
Salah Abed, Mike Cerna, Brinn Harberts, Tyler Wallace, Barbara Whitney

COURSE TITLE
Prealgebra

GENERAL COURSE INFORMATION

Dept.: MATH   Course Num: 090   (Formerly:)
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 basic arithmetic and pre-algebraic concepts and operations including operations with integers, fractions, decimals and percents; order of operations, measurement and simple linear equations. This course is offered as an option to students who have successfully shown sufficient progress in MATH 094 but have not completed the final exam.

PREREQUISITES
Instructor permission required

TEXTBOOK GUIDELINES
No text required, content available online

COURSE LEARNING OUTCOMES
Upon successful completion of the course, students should be able to demonstrate the following knowledge or skills:
1. Uses properties of prime and composite numbers to find least common multiples and reduce fractions to lowest terms.
2. Applies appropriate methods add, subtract, multiply, divide, and find powers of integers, fractions, and decimals.
3. Uses order of operations to simplify arithmetic and algebraic expressions.
4. Solves application problems using ratios and proportion.
5. Solves application problems using percents.
6. Uses conversion factors when converting units of measure.
7. Computes mean, median and mode of a data set.
8. Solves basic linear equations.

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

COURSE CONTENT OUTLINE
1. Add and subtract integers
2. Multiply and/or divide integers
3. Simplify with order of operations with integers and absolute value
4. Simplify with order of operations with integers
5. Evaluate algebraic expression for given values
6. Add polynomials
7. Distribute, then combine like terms
8. Find the prime factorization of a number
9. Reduce simple fraction
10. Divide fractions
11. Find LCM with variables
12. Subtract fractions
13. Use order of operations with fractions
14. Solve a perimeter problem
15. Subtract mixed numbers
16. Calculate weighted average
17. Find mean, median, mode
18. Calculate a basic probability
19. Compare unit prices
20. Solve a proportion application
21. Change fraction to percent
22. Solve a percent problem
23. Solve a percent application
24. Calculate simple interest
25. Solve equation of the form $ax+b=c$ (integer solution)
26. Solve equation of the form $ax+b=c$ (rational solution)
27. Solve equation of the form $ax+b=cx+d$
28. Solve equation of the form $a(bx+c)=dx+e$
29. Solve equation of the form $ax=bx+c$ (rational coefficients)
30. Solve equation of the form $ax+b=cx+d$ (decimal coefficients)
31. Solve a proportion
32. Solve equation of the form $a(bx+c)+d=ex+f$
33. Solve equation of the form $a=-bx+c$
34. Solve equation of the form $ax+b=c$ (rational coefficient)

DEPARTMENTAL GUIDELINES *(optional)*
Grade will be pass/fail. To earn a passing grade a student must earn 70% or higher weighted average on each unit. Each unit will be weighted as 75% test, 20% daily assignments, and 5% workbook. A student finishing coursework early will have the option to begin MATH 094 coursework.

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DIVISION CHAIR APPROVAL   **DATE**