

Standard Institutionally Developed College: N/A

EDGE Compatible: No

Pre-requisites

MATH 0096 - Math II (201003)

Co-requisites

Course Description

Emphasizes in-depth arithmetic skills needed for the study of mathematics and for the study of basic algebra. Topics include whole numbers, fractions, decimals, percents, ratio/proportion, measurement, geometry, and application problems.

Course Length

	Minutes	Contact Unit
Lecture:	2250	
Lab 2:	0	
Lab 3:	0	
Practicum/Internship:	0	
Clinical:	0	
Total:	2250	3
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Semester Credit Hours:		3

Competencies

Order	Description	Lecture	Lab2	Lab3	Practicum/ Internship	Clinical	Total Minutes	Semester Credit Hrs
1	Whole Numbers	225	0	0	0	0	225	0
2	Fractions	450	0	0	0	0	450	0
3	Decimals	450	0	0	0	0	450	0
4	Percents and Ratio/proportion	675	0	0	0	0	675	0
5	Measurement	225	0	0	0	0	225	0
6	Geometry	225	0	0	0	0	225	0
Totals for Course MATH 0097 - Math III (version 201003):		2250	0	0	0	0	2250	3

Learning Outcomes

Whole Numbers

Order	Description	Learning Domain	Level of Learning
1	State the meaning of digits in standard notation and recognize place value.	Cognitive	Knowledge
2	Perform mathematical operations involving whole numbers.	Cognitive	Synthesis
3	Solve simple equations.	Cognitive	Application
4	Solve application problems involving whole numbers.	Cognitive	Application
5	Solve problems involving exponential notation and order of operations.	Cognitive	Application
6	Determine the factorizations of whole numbers.	Cognitive	Application
7	Use the rules of divisibility.	Cognitive	Application
8	Determine the least common multiple of two or more numbers.	Cognitive	Application

Fractions

Order	Description	Learning Domain	Level of Learning
1	Define fractions.	Cognitive	Knowledge
2	Identify proper, improper, and mixed fractions.	Cognitive	Knowledge
3	Change fractions to equivalent fractions.	Cognitive	Application
4	Compare fractions.	Cognitive	Synthesis
5	Solve problems requiring addition, subtraction, multiplication, and division of fractions.	Cognitive	Application
6	Apply the order of operations in simplifying expressions.	Cognitive	Application
7	Solve application problems with fractions.	Cognitive	Application

Decimals

Order	Description	Learning Domain	Level of Learning
1	Define decimals.	Cognitive	Knowledge
2	Identify decimal place values.	Cognitive	Knowledge
3	Read decimals.	Cognitive	Knowledge
4	Write decimals.	Cognitive	Knowledge
5	Round decimals off to specified place values.	Cognitive	Knowledge
6	Solve problems requiring addition, subtraction, multiplication, and division of decimals.	Cognitive	Application
7	Substitute fractions for decimals and decimals for fractions.	Cognitive	Synthesis
8	Compare decimals.	Cognitive	Synthesis
9	Solve application problems involving decimal notation.	Cognitive	Application

Percents and Ratio/proportion

Order	Description	Learning Domain	Level of Learning
1	Find fraction notation for a ratio and a rate.	Cognitive	Knowledge
2	Convert from percent to decimal.	Cognitive	Comprehension
3	Convert from decimal to percent notation.	Cognitive	Comprehension

Order	Description	Learning Domain	Level of Learning
4	Convert from percent to fraction notation.	Cognitive	Comprehension
5	Rewrite fractions as percent.	Cognitive	Synthesis
6	Solve percent problems using percent equations.	Cognitive	Application
7	Solve percent problems using proportions.	Cognitive	Application
8	Solve application problems involving percents.	Cognitive	Application

Measurement

Order	Description	Learning	Level of
1	Change linear measures involving American and Metric units from one unit of measure to another.	Cognitive	Application
2	Change weight and mass units from one unit of measure to another.	Cognitive	Application
3	Change capacity from one unit of measure to another.	Cognitive	Application
4	Change time and temperature from one unit of measure to another.	Cognitive	Application

Geometry

Order	Description	Learning Domain	Level of Learning
1	Classify basic geometric figures.	Cognitive	Analysis
2	Use the appropriate formula to calculate the perimeter of a polygon.	Cognitive	Application
3	Use the appropriate formula to calculate the area of a rectangle, square, parallelogram, triangle, and trapezoid.	Cognitive	Application
4	Use the appropriate formula to calculate the radius, diameter, circumference and area of a circle.	Cognitive	Application
5	Use the appropriate formula to calculate the volume of a rectangular solid, circular cylinder, sphere, and circular cone.	Cognitive	Application

References

Order	Reference Type	Description
1	Book with Author(s) Listed	Bittinger, M. & Beecher, J.. (2008). Developmental mathematics. (7th). Boston, MA: Pearson.
2	Book with Author(s) Listed	Martin-Gay, K. . (1999). Basic college mathematics. (1st). Upper Saddle River, NJ: Prentice Hall.
3	Book with Author(s) Listed	Bittinger, M., Ellenbogen, D. & Johnson, B.. (2008). Pre-algebra, packaged with MyMath lab access kit. (5th). Boston, MA: Addison Wesley.