



Order	Description	Lecture	Lab2	Lab3	Practicum/ Internship	Clinical	Total Minutes	Semester Credit Hrs
	<b>Totals for Course MATH 1012 - Foundations of Mathematics ( version 201003 ):</b>	<b>2250</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2250</b>	<b>3</b>

## Learning Outcomes

### Fractions

Order	Description	Learning Domain	Level of Learning
1	Simplify fractions.	Cognitive	Application
2	Multiply and divide fractions.	Cognitive	Application
3	Add and subtract fractions.	Cognitive	Application
4	Add, subtract, multiply, and divide mixed numbers.	Cognitive	Application
5	Solve application problems with fractions.	Cognitive	Analysis
6	Perform hierarchy of operations.	Cognitive	Application

### Decimals

Order	Description	Learning Domain	Level of Learning
1	Read and write decimal word names.	Cognitive	Knowledge
2	Identify place value.	Cognitive	Knowledge
3	Round decimal notation.	Cognitive	Knowledge
4	Add and subtract decimal notation.	Cognitive	Application
5	Multiply decimal notation.	Cognitive	Application
6	Divide decimal notation.	Cognitive	Application
7	Convert from fraction notation to decimal notation.	Cognitive	Application
8	Estimate with decimal notation.	Cognitive	Application
9	Solve application problems with decimal notation.	Cognitive	Analysis
10	Perform hierarchy of operations.	Cognitive	Application

### Ratios and Proportions

Order	Description	Learning Domain	Level of Learning
1	Define ratios and rates.	Cognitive	Knowledge
2	Simplify ratios in fraction form.	Cognitive	Application
3	Find unit rates.	Cognitive	Application
4	Solve a proportion using cross products.	Cognitive	Application
5	Solve application problems involving proportions.	Cognitive	Analysis

### Percents

Order	Description	Learning Domain	Level of Learning
1	Convert between percent and decimal notation.	Cognitive	Application
2	Convert between percent and fraction notation.	Cognitive	Application
3	Solve percent problems using percent equations.	Cognitive	Application
4	Solve percent problems using proportions.	Cognitive	Application
5	Solve application problems involving percents.	Cognitive	Analysis

#### Measurement and Conversion

Order	Description	Learning	Level of
1	Convert linear measures involving American and metric units from one unit of measure to another.	Cognitive	Application
2	Convert weight and mass units from one unit of measure to another.	Cognitive	Application
3	Convert capacity from one unit of measure to another.	Cognitive	Application
4	Solve application problems involving measurement and conversion.	Cognitive	Analysis

#### Formula Manipulation

Order	Description	Learning Domain	Level of Learning
1	Solve basic formulas for a specified variable.	Cognitive	Application
2	Identify basic two and three dimensional figures.	Cognitive	Knowledge
3	Find the areas of rectangular and circular figures.	Cognitive	Application
4	Solve for volumes of cubes, rectangular solids, and right circular cylinders.	Cognitive	Application
5	Identify , measure, and solve problems using angles.	Cognitive	Application
6	Evaluate technical formulas.	Cognitive	Application

#### Technical Applications

Order	Description	Learning Domain	Level of Learning
1	Apply mathematical concepts of varied occupational applications.	Cognitive	Analysis

#### Basic Statistics

Order	Description	Learning Domain	Level of Learning
1	Solve applications involving circle, bar, and line graphs.	Cognitive	Analysis
2	Solve applications involving frequency, distributions, and histograms.	Cognitive	Analysis
3	Find the mean, weighted mean, median, and mode for a set of data.	Cognitive	Application

#### References

Order	Reference Type	Description
1	Book with Author(s) Listed	Akst, G. & Bragg, S.. (2009). Basic mathematics through applications. (4th). Boston, MA: Pearson Education.

Order	Reference Type	Description
2	Book with Author(s) Listed	Lial, M., Salzman, S. & Hestwood, D.. (2010). Basic college mathematics. (8th). Boston, MA: Pearson Addison Wesley Longman.
3	Book with Author(s) Listed	Bello, I.. (2009). Basic college mathematics: A real-world approach. (3rd). New York, NY: McGraw Hill.