MATH 1100 - Quantitative Skills and Reasoning (version 201003)

Posted: 02/10/2010

☑ Standard ☐ Institutionally Developed College: N/A

EDGE Compatible: No

Pre-requisites

MATH 0099 - Intermediate Algebra (201003)

Co-requisites

Course Description

Emphasizes algebra, statistics, and mathematics of finance. Topics include fundamental operations of algebra, sets and logic, probability and statistics, geometry, mathematics of voting and districting, and mathematics of finance.

Course Length

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

Competencies

Order	Description	Lecture	Lab2	Lab3	Practicum/ Internship	Clinical	Total Minutes	Semester Credit Hrs
1	Fundamental Operations of Algebra	800	0	0	0	0	800	1
2	Sets & Logic : Sets; Set Operations; Logic; Reasoning	300	0	0	0	0	300	0
3	Probability & Statistics	450	0	0	0	0	450	0
4	Geometry : Perimeter; Area; Volumes; Triangle	200	0	0	0	0	200	0
5	Mathematics of Voting & Districting : Voting & Apportionment	100	0	0	0	0	100	0
6	Mathematics of Finance: interest, Present and Future Value;	400	0	0	0	0	400	0

Order	Description	Lecture	Lab2	Lab3	Practicum/ Internship	Clinical	Total Minutes	Semester Credit Hrs
	Totals for Course MATH 1100 - Quantitative Skills and Reasoning (version 201003):	**2250**	**0**	**0**	**0**	**0**	**2250**	**3**

Learning Outcomes

Fundamental Operations of Algebra

Order	Description	Learning Domain	Level of Learning
1	Demonstrate quantitative skills by solving linear and quadratic equations.	Cognitive	Application
2	Evaluate system of linear equations with two unknowns.	Cognitive	Application

Sets & Logic : Sets; Set Operations; Logic; Reasoning

Order	Description	Learning Domain	Level of Learning
1	Perform the set operations of complement, union and intersection on sets.	Cognitive	Application
2	Compute truth tables for compound statements.	Cognitive	Application
3	Compare and contrast between inductive and deductive reasoning.	Cognitive	Analysis

Probability & Statistics

Order	Description	Learning Domain	Level of Learning
1	Calculate the number of permutations and combinations of finite number of objects taken at a time.	Cognitive	Application
2	Compute simple probability , mutually exclusive events, independent events and conditional probability.	Cognitive	Application
3	Calculate mean, median, range, percentiles, quartiles and standard deviation.	Cognitive	Application
4	Utilize normal distribution to solve applied problems.	Cognitive	Analysis

Geometry : Perimeter; Area; Volumes; Triangle

Order	Description	Learning Domain	Level of Learning
1	Calculate the perimeter of simple geometric figures.	Cognitive	Application
2	Compute the volume of simple geometric figures.	Cognitive	Application

Mathematics of Voting & Districting : Voting & Apportionment

Order	Description	Learning Domain	Level of Learning
1	Understand the mathematics of voting and districting and voting and apportionment.	Cognitive	Comprehension

Mathematics of Finance: interest, Present and Future Value;

Order	Description	Learning Domain	Level of Learning
1	Calculate simple and compound interest.	Cognitive	Application

Order	Description	Learning Domain	Level of Learning
2	Solve annuity problems.	Cognitive	Analysis
3	Construct an amortization schedule.	Cognitive	Application
4	Compute finance charges on credit cards.	Cognitive	Application

References

Order	Reference Type	Description
1	Book with Author(s) Listed	Aufmann, R. and et.al.. (2007). Mathematical Excursions. (2nd Edition). New York: Houghton Mifflin Company and College Division..
2	Book with Author(s) Listed	Blitzer, Robert. (2007). Thinking Mathematically. (4th Edition). New York: Pearson.
3	Book with Author(s) Listed	Bello, Ignatio and et.al. (2004). Topics in Contemporary Mathematics. (8th Edition). New York: Houghton Mifflin Company and College Division.