Business Class Curriculum (Second Semester)

Mathematical Domain	Cluster	Standard	Sample Teaching Strategy / Possible Integration
The Real Number System	Extend the properties of exponents to rational exponents	N-RN.1 Extend the properties of exponents to rational exponents	Compound interest loans, sales projections
Quantities	Reason quantitatively and use unites to solve problems	N-Q.1 Use units as a way to understand problems	Purchasing, discounts, mark-ups
		N-Q.2 Define appropriate quantities	Production, reasonableness,
		N-Q.3 Level of Accuracy	Money, people, etc
Matrix Quantities		N-VM.7 Perform operations on matrices	Purchasing quantities of items
Interpret the structure of expressions		A-SSE.1 In terms of context	Profit, sales functions, linear programming
		A-SSE.2 Ways to rewrite	Sales
		A-SSE.3 Choose and produce an equivalent form	Sales
Arithmetic with Polynomial Expressions		A-APR.3 Identify zeros of polynomials	Analyzing profit, depreciation
Creating Equations and Inequalities	Create equations and inequalities that describe numbers or relationships	A-CED.1 Create one variable equations	Business models and cost
		A-CED.2 Create two variable equations	Profit maximizations, warehouse space
		A-CED.3 Represent constraints	Cost constraints, Linear programming
Reasoning with Equations and Inequalities		A-REI.1 Justify Steps	Applying properties of business reasoning
		A-REI.3 Solve linear equations and inequalities	Advertising and profit, Linear programming
	Solve systems of equations	A-REI.5 System of equations	Linear programming
		A-REI.6 Solve systems of linear equations	Linear programming
	Represent and solve equations and inequalities graphically	A-REI.10 Understand the graph	Supply and demand curves
		A-REI.11 Intersection and solutions from graphs	Linear programming and supply and demand curves

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Interpreting Functions	Understand the concept of a function and use a function notation	F-IF.2 Use function notation	Profit
	Interpret functions that arise in applications in terms of the context	F-IF.4 Models relationship between two quantities	Supply and Demand
		F-IF.5 Appropriate domains	Positive numbers of items sold, etc
		F-IF.6 Calculate and interpret rate of change	Inflation, mark-up rate
	Analyze functions using different representations	F-IF.7 Graph functions	Linear programming sales projections, marketing
		F-IF.9 Compare properties in different ways	Bar graphs, circles graphs
Building functions	Build a function that models a relationship between two quantities	F-BF.1 Write a function that describes a relationship between two quantities	Accounting, assets and liabilities, supply and demand
Linear, Quadratic, and Exponential Models	Construct and compare linear, quadratic, and exponential models and solve problems	F-LE.1b Recognize situations in which one quantity changes at a constant rate	Profit functions, costs functions, depreciation
		F-LE.2 Construct linear and exponential functions input-output tables	Production
	Interpret expressions for functions in terms of the situation they model	F-LE.5 Interpret the parameters in a linear or exponential function	Apply results of business models
Modeling with Geometry	Apply geometric concepts in modeling situations	G-MG.1 Use geometric shapes	Marketing surveys, Pie charts, Accounting records, warehouse space, shape of container for product
Interpreting Categorical and Quantitative Data	Summarize, represent, and interpret data on a single count of measurement variable	S-ID.1 Represent data with plots	Tracking sales over time, Quality control
		S-ID.2 Use statistics to compare data	Use mean, median and mode in sales

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	Summarize, represent, and interpret data on two categorical and quantitative variables.	S-ID.5 Summarize data for two categories	Frequency tables for Peak hours, most productive work time
		S-ID.6 Represent data on two quantitative variable on a scatter plot	Keeping a business journal,
	Interpret linear models	S-ID.7 Interpret slope	Sales potential
		S-ID.8 Line of best fit	Business journal
		S-ID.9 Distinguish between correlation and causation	Look at data to see correlation in profit margins, decrease in profit, etc