Bronx Community College of the City University of New York
Department of Mathematics and Computer Science

Syllabus: **MTH 23 Probability and Statistics** (3 credits, 3 hours per week)

Prerequisite: MTH 04 or equivalent; co-requisite ENG 02 and/or RDL 02 if required

TEXT: Understanding Basic Statistics by Brase & Brase, BROOKS/COLE, Cengage Learning.   (5th Edition, ISBN 978-0-547-13249-5)

	SECTION	TOPIC	PAGES	PROBLEMS
1. Getting Started	1.1	What is statistics?	10-11	1-13
	1.2	Random Samples	17-18	1-16
	1.3	Introduction to Experimental Design	26-27	1-6
2. Organizing Data	2.1	Frequency Distributions, Histograms, and Related Topics	44-48	1-17
	2.2	Bar Graphs, Circle Graphs, and Time-Series Graphs	54-56	1-12
	2.3	Stem-and-Leaf Displays	60-63	1-10
3. Averages and Variation	3.1	Measures of Central Tendency: Mode, Median, and Mean	81-83	1-14
	3.2	Measures of Variation	93-98	1-17
	3.3	Percentiles and Box-and-Whisker Plots	105-107	1-10
4. Correlation and Regression	4.1	Scatter Diagrams and Linear Correlation	130-133	1-18
	4.2	Linear Regression and the Coefficient of Determination	144-147	1-14
5. Elementary Probability Theory	5.1	What is Probability?	164-166	1-13
	5.2	Some Probability Rules– Compound Events	180-184	1-23
	5.3	Tree Diagrams and Counting Techniques	192-194	1-27
6. The Binomial Probability Distribution and Related Topics	6.1	Introduction to Random Variables and Probability Distributions	210-213	1-14
	6.2	Binomial Probabilities	222-225	1-18
	6.3	Additional Properties of the Binomial Distribution	230-232	1-15

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