



STATISTICS AND MATH COURSE PREP

Many programs will have a statistics or mathematics requirement. If you're taking Business, Economics, Science, Physics, or Computer Science you will have additional math course requirements. To prepare for these courses, you can explore the Khan Academy links below. If you're not sure about your program requirements, review Brock's web course calendar or contact your program Academic Advisor. A-Z Learning Services also offers prep courses like BU101 in August that you can take and offer Drop-In Assignment support throughout the year. (Currently online. See [Experience BU](#) for drop-in dates and times.)

Topic	Concept	Details	Khan Academy Link
Introduction to Statistics		For a complete review of Statistics.	https://www.khanacademy.org/math/statistics-probability
Relevant for First-Year Statistics Courses	1. Quantitative Data	Topic includes lessons on Measures of Centre and Measures of Variation.	https://www.khanacademy.org/math/statistics-probability/summarizing-quantitative-data
	2. Probability	Topic includes lessons on Theoretical & Experimental Probability, Sample Spaces, and Independent versus Dependent Events.	https://www.khanacademy.org/math/statistics-probability/probability-library
	3. Permutation & Combination	Topic includes lessons on Factorials, Permutations, Combinations, and Probability Counting.	https://www.khanacademy.org/math/statistics-probability/counting-permutations-and-combinations
	4. Modeling Data Distributions	Topic includes lessons on Percentiles, Z-scores, and Normal Distributions.	https://www.khanacademy.org/math/statistics-probability/modeling-distributions-of-data
	5. Idea of Significance Tests (first section of unit only)	Topic includes lessons on Simple Hypothesis Testing, Null and Alternative Hypotheses, and P-values.	https://www.khanacademy.org/math/statistics-probability/significance-tests-one-sample#idea-of-significance-tests



Mathematics Review	Algebra and Functions	For a complete review of Algebra and Functions.	Basic: https://www.khanacademy.org/math/algebra Advanced: https://www.khanacademy.org/math/algebra2
Relevant for First-Year Calculus Courses	1. Functions	Topic includes lessons on Function Notation, Domain & Range, Maximum & Minimum, and Inverse Functions.	https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:functions
	2. Exponents & Radicals	Topic includes lessons on Exponent Properties, Radicals, and Simplifying Square Roots.	https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:rational-exponents-radicals
	3. Factoring	Topic includes lessons on Multiplying Binomials, Common Factoring, and Factoring Quadratics.	https://www.khanacademy.org/math/high-school-math/algebra2/x2ec2f6f830c9fb89:poly-factor
	4. Quadratic Functions	Topic includes lessons on Solving Quadratics, the Quadratic Formula, and Vertex & Standard Form.	https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:quadratic-functions-equations
	5. Rational Exponents & Radicals	Topic includes lessons on Rational Exponents, Properties of Exponents, and Solving Exponential Equations.	https://www.khanacademy.org/math/algebra2/x2ec2f6f830c9fb89:exp
	6. Logarithms	Topic includes lessons on Natural Logarithm, Change of Base Formula, and Solving Exponential Equations.	https://www.khanacademy.org/math/algebra2/x2ec2f6f830c9fb89:logs



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	7. Rational Functions	Topic includes lessons on Simplifying Rational Expressions, Asymptotes, and Graphing Rational Functions.	https://www.khanacademy.org/math/algebra2/x2ec2f6f830c9fb89:rational
	8. Trigonometry	Topic includes lessons on Trigonometric Ratios, SOH CAH TOA, and Pythagorean Theorem.	https://www.khanacademy.org/math/trigonometry/trigonometry-right-triangles
	9. Composite Functions (first section of unit only)	Topic includes lessons on Finding Composite Functions and Evaluating Composite Functions.	https://www.khanacademy.org/math/prec calculus/x9e81a4f98389efdf:composing