

Statistical Reasoning Subject Group Overview - Semester 1

| Unit Name | Analyzing One Variable Data | Analyzing Two Variable Data | Collecting Data | Probability |
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| Time Frame | 12 Days | 10 Days | 12 Days | 9 Days |
| Standards/ IB Topics | MSR.AD.1, 1a, 1b MSR.FQ.1 | MSR.FQ.2, 2a MSR.AD.2, 2a MSR.AD.3, 3a | MSR.FQ.1 MSR.CD.2, 2a MSR.CO.3 MSR.CD.4, 4a | MSR.CD.2, 2a MSR.AD.3, 3a |
| Content Specific Information | Origin of Data Displaying Categorical Data Displaying Quantitative Data Measuring Center Measuring Variability Summarizing Data Finding Percentiles | Relationships between Variables Correlation Regression Modeling Curved Relationships | Data Collection Sampling/Random Sampling Margin of Error Bias and Variability Inferences from Experiments Research Ethics | Randomness Basic Rules of Probability 2-way Tables Venn Diagrams Conditional Probability Tree Diagrams Independence Permutations and Combinations |
| Common Assessments/ Major Projects | Cumulative Unit Test | Cumulative Unit Test | Cumulative Unit Test | Cumulative Unit Test |
| Resources | Statistics and Probability with Applications (High School) 3 rd Ed. | Statistics and Probability with Applications (High School) 3 rd Ed. | Statistics and Probability with Applications (High School) 3 rd Ed. | Statistics and Probability with Applications (High School) 3 rd Ed. |

Statistical Reasoning Subject Group Overview - Semester 2

| Unit Name | Random Variables | Sampling Distributions / Confidence Intervals | Testing a Claim/Comparing Two Populations | Inference for Distributions |
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| Time Frame | 10 days | 13 days | 10 days | 15 days |
| Standards/ IB Topics | MSR.IR.1, 1a MSR.CD.2, 2a MSR.CD.4, 4a | MSR.CD.1, 1a, 1b | MSR.IR.1, 1a MSR.AD.2, 2a MSR.AD.3, 3a | MSR.IR.1, 1a MSR.IR.2, 2a |
| Content Specific Information | Discrete Random Variables Binomial Random Variables Continuous Random Variables Standard Normal Distributions Normal Distribution Calculations | Sampling Distributions Center and Variability Sample Count Sample Proportion Sample Mean Central Limit Theorem Confidence Interval Margin of Error Estimating a Proportion Confidence Intervals for a Proportion Estimating Mean Confidence Intervals for Mean | Significance Tests Testing a Claim about a Proportion Significance Test for a Proportion Testing a Claim about a Mean Significance Test for a Mean Estimating a Difference between Proportions Testing a Claim about a Difference between Proportions Estimating a Difference between two Means Testing a Claim about a Difference between two Means Analyzing Paired Data Testing a Claim about a Mean Difference | Testing the Distribution of Categorical Data Chi-Square Test for Goodness of Fit Testing the Relationship between Two Categorical Variables Chi-Square Test for Association Testing the Relationship between Two Quantitative Variables Slope of Least-Squares Regression Line |
| Common Assessments / Major Projects | Cumulative Unit Test | Cumulative Unit Test Acceptable Margin of Error Project | Cumulative Unit Test | Cumulative Unit Test |
| Resources | Statistics and Probability with Applications (High School) 3 rd Ed. | Statistics and Probability with Applications (High School) 3 rd Ed. | Statistics and Probability with Applications (High School) 3 rd Ed. | Statistics and Probability with Applications (High School) 3 rd Ed. |