00-Statisics Data Science Overview/Scope & Sequence

Content Area: **Math**
Course(s):
Time Period: **Full Year**
Length: **Full Year**
Status: **Published**

General Overview, Course Description or Course Philosophy

This course combines the study of Statistics and Probability with Data Science. The goal is to have students think critically about data in today's data-driven world and understand its role in the 21st Century economy. Furthermore, students will become familiar with the concepts, topics, and techniques used by data scientists and statisticians in their day-to-day work.

Throughout this course, students will engage in project-based observational studies and experiments to develop their understanding of data analysis, sampling, correlation/causation, bias and uncertainty, probability, modeling with data, as well as making and evaluating data-based arguments. Students will also learn about the roles of data scientists, the power of data in society, machine learning, and how data scientists extract knowledge and insights from real-world data.

	Unit Topic	Suggested Pacing
	Introduction to class	1 week (4 blocks)
1	Statistics - Analyzing One Variable Statistics	5 weeks (19 blocks)
2	Data Science Unit 1 - Data Tells a Story	4 weeks (15-16 blocks)
3	Data Science Unit 2 - That Data of Our Community	3 weeks (10 -12 blocks)
4	Statistics - Analyzing Two-Variable Statistics	4 weeks (15-16 blocks)
5	Data Science - Unit 3 - Water in your Life	3 weeks (10-12 blocks)
6	Statistics - Probability	2 weeks (7-8 blocks)
7	Data Science - Unit 4 - Shuffling Songs	3 weeks (10-12 blocks)
8	Data Science - Unit 5 - Skin Tone and Representation	4 weeks (15 - 16 blocks)
9	Data Science - Unit 6 - What's the best place for me?	3 Weeks(10 - 12 blocks)

| 10 | Data Science - Unit 7 - Predicting my preferences | 5 Weeks (19 blocks) |
| 11 | Data Science - Unit 8 Being a Data Scientist | 3 Weeks (10-12 Blocks) |

ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS

See link to Accommodations & Modifications document in course folder.