APPLIED STATISTICS (APSTA-UE)

APSTA-UE 10 Statistical Mysteries and How to Solve Them (4 Credits)
Typically offered Spring
An introductory quantitative & statistical reasoning course designed to help students acquire statistical literacy & competency to survive in a data-rich world. The course introduces students to basic concepts in probability, research design, descriptive statistics, & simple predictive models to help them to become more savvy consumers of the information they will routinely be exposed to in their personal, academic & professional lives. Course material will be conveyed through video clips, case studies, puzzle solving, predictive competitions, & group discussions. Liberal Arts Core/CORE Equivalent - satisfies the requirement for Quantitative Reasoning for some Steinhardt students; students should check with their Academic Advisor for confirmation.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

APSTA-UE 21 Cracking the Code (4 Credits)
Typically offered Spring
Aimed at students who expect to read & interpret, rather than conduct, statistical analyses, this course is designed to help students become better & more critical consumers of quantitative evidence. Using research studies discussed in the popular media & focused on currently debated questions in education & social policy, the course covers key concepts in quantitative reasoning, basic statistics, & research design. Research readings will focus on topical issues regarding early childhood & K-12 education & other social policy issues that affect children. Liberal Arts Core/CORE Equivalent - satisfies the requirement for Quantitative Reasoning for Steinhardt students.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

APSTA-UE 25 Carpe Datum: Data Science for Life's Big Questions (4 Credits)
How many types of people are there? When and how will you die? Will you make money? Is the system fair? This fully online course introduces students to topics in data science, probability, and statistics through big life questions. Students learn to code in the R language and use simulation-based methods rather than equations for inference. Liberal Arts Core/CORE Equiv - Satisfies Quantitative Reasoning for some Steinhardt students; check with your Academic Advisor
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

APSTA-UE 1085 Basic Statistics I (4 Credits)
Typically offered Fall and Spring
Review of the essential mathematics for statistics. Collection & tabulation of data; the properties of frequency distributions; histograms; boxplots; measures of central tendency, dispersion & correlation; tests of hypothesis using the normal curve, the T distribution, the F distribution. Liberal Arts Core/CORE Equivalent - satisfies the requirement for Quantitative Reasoning for Steinhardt students.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

APSTA-UE 1090 Using Statistics to Address Controversies in Educational Equity (4 Credits)
This course explores contemporary controversial topics such as race and pecial education placement, gender and educational advantage, language of nstruction, and supports for LGBTQ students. Students read current articles debating these topics and participate in debates. This course builds on students' understanding of basic statistics and correlation to develop their abilities to distinguish between ideology and evidence and to discern the data- and logic-based assumptions required to find evidentiary support for different claims.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

APSTA-UE 1301 Power + Politics of Data (4 Credits)
The course empowers students to improve the social impact of data-driven analysis. Students explore human experiences shaped by algorithms, machine learning, and artificial intelligence while learning how to systematically collect, share, analyze, visualize, and interpret data. The course provides historical background on issues of data privacy, digital exclusion, and online discrimination. Building both quantitative reasoning and critical thinking skills, the course is designed for students either in the sciences or humanities. No statistics prerequisite.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

APSTA-UE 1302 Books to Blockchain: Quantification for Pattern Discovery (4 Credits)
This experiential seminar interrogates the democratization of pattern discovery. Who decides what to count and what to keep? Using New York City as a laboratory, we explore the systems of power embedded in tabulation and archiving, and the possibilities of open, decentralized, and autonomous futures. We reflect on the past and present of knowledge infrastructures -- from books to blockchain.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No