

**CALIFORNIA UNIVERSITY
OF PENNSYLVANIA**

Program: SAS Data Science Certificate - Undergraduate

Start: Fall (August), Winter (December), Spring (January) or Summer (June) Start

Total Credits: 15

Year 1

Courses	Credits
MAT 207 Data Preparation and Cleaning	3
MAT 213 Data Visualization	3
MAT 251 Big Data Tools	3
MAT 261 Big Data Analytics	3
MAT 401 Data Analytics Capstone Project	3
Total Credits	15

Courses may be taken in any order, with the exception of the Capstone course, MAT 401, which must be taken last.

Fall start: Students who begin the program in fall take MAT 251 and MAT 261 in the fall semester, MAT 207 during the winter term, and MAT 213 and 401 in the spring semester.

Summer start: Students may complete the entire program during the summer term by taking MAT 207 and MAT 213 in the first 5-week session, MAT 401 and MAT 251 in the second 5-week session, and MAT 261 over the 10-week term.

Updated September 25, 2019