

**CALIFORNIA UNIVERSITY
OF PENNSYLVANIA**

Program: SAS Data Science Certificate - Graduate

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

Total Credits: 15

Year 1

Courses	Credits
MAT 601 Data Preparation and Cleaning	3
MAT 602 Data Visualization	3
MAT 603 Big Data Tools	3
MAT 604 Big Data Analytics	3
MAT 605 Data Analytics Capstone Project	3
Total Credits	15

Courses may be taken in any order, with the exception of the Capstone course, MAT 605, which must be taken last.

Fall start: Students who begin the program in fall take MAT 603 and MAT 604 in the fall semester, MAT 601 during the winter term, and MAT 602 and 605 in the spring semester.

Summer start: Students may complete the entire program during the summer term by taking MAT 601 and MAT 602 in the first 5-week session, MAT 605 and MAT 603 in the second 5-week session, and MAT 604 over the 10-week term.

Updated September 25, 2019