

Data Science

Master of Science (M.S.) Degree in Data Science

Degree Requirements

- A. **Core Courses:** 21 credits (7 courses). The largest component of the degree is the Core, which includes the three disciplines of Statistics, Computer Science and Data Science.

Statistics Courses

- MA 6510: Statistics I
- MA 6520: Statistics II

Computer Science Courses

- CS 6010: Algorithms and Programming Techniques
- CS 6020: Introduction to Databases
- CS 6030: Data Warehousing

Data Analytics Courses

- CS 6110: Data Analytics I
- CS 6120: Data Analytics II

- B. **Plus Courses and the Culminating Experience;** 15 credits (5 courses). The Plus Courses and the Culminating Experience are the business skills component and the applied components of the degree.

- CS 7510: Communication and Presentation
- CS 7520: Project Management
- CS 7910: Analytics Project I
- CS 7920: Analytics Project II
- CS 7800: Internship¹

- C. **Department Requirements.** Transfer students must complete a minimum of 24 credits at the College at Old Westbury.

¹ Student is responsible for securing the internship, which is to be approved by the department. If the student has difficulty in obtaining a suitable internship, the graduate director may be able to help.

Prerequisite Guide

Prerequisites for the courses are as follows:

COURSE	PREREQUISITES
MA 6510: Statistics I	
MA 6520: Statistics II	MA 6510
CS 6010: Algorithms and Programming Techniques	
CS 6020: Introduction to Databases	Concurrent with CS 6010
CS 6030: Data Warehousing	CS 6020
CS 6110: Data Analytics I	CS 6020
CS 6120: Data Analytics II	CS 6110
CS 7510: Communication and Presentation	CS 6110
CS 7520: Project Management	CS 6110
CS 7910: Analytics Project I	CS 6110 and MA 6520
CS 7920: Analytics Project II	CS 6120 and CS 7910
CS 7800: Internship	CS 6110 and MA 6520

DEPARTMENT OF MATHEMATICS AND COMPUTER & INFORMATION SCIENCE
State University of New York College at Old Westbury

Sample Two Year schedule

FALL 1	SPRING 1
MA 6510: Statistics I CS 6010: Algorithms and Programming Techniques CS 6020: Introduction to Databases	MA 6520: Statistics II CS 6030: Data Warehousing CS 6120: Data Analytics I
FALL 2	SPRING 2
CS 6120: Data Analytics II CS 7510: Communication and Presentation CS 7910: Analytics Project I	CS 7520: Project Management CS 7800: Internship CS 7920: Analytics Project II

Data Science students are recommend having a laptop with suggested minimum system requirements: Current generation of chipsets of the Apple M, Intel Core i7 or i9, AMD Ryzen 7 or 9, minimum of 16GB RAM, minimum of 1TB SSD, and a GPU of 4GB or higher. Also note a larger screen size is useful for viewing all of the code and data.