

B.S. in C.S - Data Science Track

22 Courses, 74 Credits, 4 Years

NOTE: Requires the Core Curriculum found on page 2

Year	Fall	Spring
1	Intro to C.S. (COM 1300)	Data Structures (COM 1320)
	<i>Calculus I (MAT 1412)</i>	<i>Calculus II (MAT 1413)</i>
		Mathematics for Computer Science (COM 1310)
2	Introduction to Algorithms (COM 2545)	Design & Analysis of Algorithms (COM 2546)
	<i>Linear Algebra (MAT 2105)</i>	<i>Multivariable Calculus (MAT 1510)</i>
	Programming Languages (COM 3640) if offered, otherwise Computer Organization (COM 2113)	<i>Probability Theory (MAT 2461)</i>
3	Programming Languages (COM 3640) if offered, otherwise Introduction to Distributed Systems (COM 3800)	Data Visualization (COM 3571) if offered, otherwise Modern Data Mgmt (COM 3580)
	<i>Mathematical Statistics (MAT 2462)</i>	Data Cleaning and Transformation (COM 3590)
	(COM 2113 if not yet taken)	Machine Learning (COM 3920)
4	Introduction to Distributed Systems (COM 3800) OR Intro to Comp Sys (COM 2113)	Modern Data (COM 3580) OR Data Visualization (COM 3571)
	Artificial Intelligence (COM 3760)	Natural Language Processing
	Data Science Applied (COM 4010)	Data Science Senior Project

Recommended: Parallel Algorithms & Programming (COM 3820)

Non-C.S. Requirements for the B.S. and B.A. Degrees

- All students need a total of 128 credits to graduate
- Students in the B.A. track have the same non-C.S. requirements as all other B.A. students in Yeshiva College
- Students in either B.S. track have the non-C.S. requirements show in the table below.

<u>Requirement</u>	<u>Credits</u>	<u>Number of Courses</u>
First Year Writing	3	1
BIB, JHI, JST, or JTP	4	2
Choose from Contemporary World Cultures (COWC) or Cultures Over Time (CUOT)	3	1
Interpreting the Creative (INTC)	3	1
Human Behavior and Social Institutions (HBSI)	3	1
Electives: choose from any of the following Y.C. departments: ART, BIO, BIB, CHE, ECO, ENG, HEB, HIS, JHI, JST, JTP, MUS, PHI, PHY, POL, PSY, SOC, SPA	6	2
TOTALS	22	8

For more details regarding what the various categories (COWC, HBSI, etc.) mean, what Y.C. courses count towards them, etc. please consult Y.C.'s web site or academic advising.

Since B.S. students must be on campus for 8 semesters and there are 8 non-C.S. requirements, B.S. students can take one non-C.S. requirement each semester to pace themselves and evenly distribute their workload. We caution against waiting until late in your college career to fulfill these requirements, as you may not find all the courses you need being offered exactly when you would need them if you procrastinate.

For answer to frequently asked questions about the requirements, please visit <https://www.yu.edu/yeshiva-college/ug/computer-science/requirements>.