

Four-Year Scheme (Tentative) – BS in Data Science

First Year					
First Semester			Second Semester		
Course N°	Course Name	Hrs.	Course N°	Course Name	Hrs.
DATA 023	Foundational Python for Data Science	3	MATH 014	Introduction to Data Science	3
CSCI 100	Introduction to Computer Science	3	MATH 156	Calculus I	4
Gen. Ed.	Science I	3	MATH 009 Gen. Ed.	Introduction to Statistics	4
Gen. Ed.	Freshman Seminar	1	HHPL Gen. Ed.	Health Education	1
Gen. Ed.	Freshman English I	3	Gen. Ed.	Freshman English II	3
			HHPL	PE	1
Total Credit Hours in First Year: 29					
Second Year					
First Semester			Second Semester		
Course N°	Course Name	Hrs.	Course N°	Course Name	Hrs.
MATH 157	Calculus II	4	MATH 163	Machine Learning	4
MATH 152	Applied Statistics	3	DATA 021	Computational Social Justice	3
MATH 153	Data Wrangling/Engineering	3	ELECTIVE	Math/Data Science**	3
Gen. Ed.	Social Science I	3	Gen.Ed.	Social Science II	3
COAS Req.	World Language I	3	COAS Req.	World Language II	3
Total Credit Hours in Second Year: 32					
Third Year					
First Semester			Second Semester		
Course N°	Course Name	Hrs.	Course N°	Course Name	Hrs.
MATH 189	Probability & Statistics I	3	MATH 190	Probability & Statistics II	3
ELECTIVE	Math/Data Science***	4	MATH 177	Optimization Techniques	4
Gen.Ed.	Science II	3	DATA 108	Internship course	3
Gen.Ed.	Humanities I	3	Gen.Ed.	Humanities II	3
COAS Req.	Intercultural knowledge and world language	3	ELECTIVE	Concentration	3
Total Credit Hours in Third Year: 32					

Fourth Year					
First Semester			Second Semester		
Course N°	Course Name	Hrs.	Course N°	Course Name	Hrs.
MATH 181	Discrete Structures*	3	ELECTIVE	Concentration	3
ELECTIVE	Math/Data Science***	4	ELECTIVE	Concentration	3
ELECTIVE	Math/Data Science**	3	COAS Req.	African Diasporic Cluster	3
CAP. I	Capstone Project I	4	CAP. II	Capstone Project II	4
Total Credit Hours in Fourth Year: 27					
Overall Total = 120 Credits					

* May replace MATH 103 - Proof and Problem Solving

** MATH/DATA SCIENCE ELECTIVES (3cr)

*** MATH/DATA SCIENCE ELECTIVES (4cr)

CONCENTRATION ELECTIVES FOR THE BS IN DATA SCIENCE WILL BE BASED ON THE CONCENTRATION CHOSEN FROM AMONG THE FOLLOWING:

- **Artificial Intelligence (AI)**
- **Healthcare Analytics (HA)**
- **Business Analytics (BA)**