Data Science & Statistics BA

FOUR YEAR ACADEMIC PLAN

12	Required Core Credits
18	Flexible Core Credits
12	College Option Credits
63	Major Credits
15	Elective Credits
120	Total

This 4-year academic plan is designed to help freshmen entering Queens College in Fall 2020 plan their academic career and ensure that they complete all requirements for graduation in a timely fashion. All other students should consult their academic and department advisors to chart their own 4-year academic plans. Students should note that course pre-requisite/s and co-requisite/s are strictly enforced and they should regularly meet with their department advisors to identify their specific major/minor requirements and entrance and maintenance criteria (if applicable) for successful completion of their degree.

QUEENS COLLEGE

CUNY

Freshman

FALL		**SPRING**	
English Composition I (EC1)	3 credits	English Composition II (EC2)	3 credits
World Cultures & Global Issues (WCGI)	3 credits	MATH 152¥ (or equivalent)	4 credits
Life & Physical Science (LPS)	3 credits	Calculus/ Integration & Infinite Series	
MATH 151¥ (or equivalent) (MQR)	4 credits	Creative Expression (CE)	3 credits
Calculus/ Differentiation & Integration		Additional Flexible Core	3 credits
CSCI 111 (SW)	3 credits	SOC 101 (IS)	3 credits
Introduction to Algorithmic Problem Solving		Introduction to Sociology	
Fall total credits	**16 credits**	**Spring total credits**	**16 credits**

Sophomore

FALL		**SPRING**	
MATH 241	3 credits	MATH 231 (or 237)	4 credits
Introduction to Probability and Mathematical Statistics		Linear Algebra I	
CSCI 212 (or 211)	3 credits	ECON 382	3 credits
Object Oriented Programming in Java		Introduction to Econometrics	
First Major Elective, Selected from List A*	3 credits	Third Major Elective, Selected from List A*	3 credits
Second Major Elective, Selected from List A*	3 credits	Additional College Core	3 credits
College Option Literature (LIT) with		General Electives***	3 credits
Writing Unit (W)	3 credits		
Fall total credits	**15 credits**	**Spring total credits**	**16 credits**

¥ The following sequences of classes are considered the equivalents of MATH 151 and MATH 152: MATH 141, 142, and 143; MATH 131, 132, and 143; MATH 151, 142, and 143, MATH 157 and 158.

Three electives from list A and one elective from list B:

*List A: SOC 235, CSCI 48, CSCI 211, CSCI 212, CSCI 220, CSCI 240, CSCI 313, BUS 386, BIOL 330, PSYCH 323 or one relevant course not on this list (upon prior approval by your department advisor).

**List B: MATH 202, 220, 223, 232, or any MATH course 310 and above.

Data Science & Statistics BA

FOUR YEAR ACADEMIC PLAN

Junior

FALL

MATH 201	4 credits
Multivariable Calculus	
ECON 387	3 credits
Advanced Econometrics	
Foreign Language (LANG)	3 credits
US Experience in its Diversity (USED)	3 credits
General electives***	3 credits
Fall total credits	**16 credits**

SPRING

MATH 341	3 credits
Bayesian Modeling	
MATH 368 (or 621)	3 credits
Advanced Probability	
DATA 205 (or BIOL 230 or MATH 242)	4 credits
Social Statistics I	
One Writing Intensive Unit (W)	3 credits
General Electives***	3 credits
Spring total credits	**16 credits**

Senior

FALL

MATH 369 (or 633)	3 credits
Advanced Statistics	
MATH 310 (or 320)	3 credits
Elementary Real Analysis	
MATH 342/342W	4 credits
College Option Science (SCI)	3 credits
General Electives***	3 credits
Fall total credits	**16 credits**

SPRING

First Major Elective, Selected from List B**	3 credits
General Electives***	9 credits
Spring total credits	**12 credits**

The University has general education requirements. There are many general education courses that involve data science concepts; these can be beneficial for a student choosing the Data Science and Statistics option. The following courses are recommended:

LCD 101 (SW/LANG/SCI); LCD 102 (LANG); PSCI 100 (USED); PSYCH 101 (SW/SCI); PSYCH 213W (LPS/SW/SCI); SOC 101 (IS)

Note that the LCD 101 AND LCD 102 are highly recommended for the student who wishes to learn natural language processing, an important aspect of modern data science.

***General Electives: Students may complete general electives by taking courses in (most) department/s or programs they choose; however, depending on the course/program, students may need department permission and/or prerequisite course/s. Electives may be used to supplement the chosen major (an English major may want to take a course in French or Italian literature) or to fulfill interest in a different area (a Music major may be interested in the physics of sound). Students are encouraged to use available electives to complete a dual major, minor, pre-requisites for graduate or professional school, or complete and internship, experiential learning and/or study abroad. Students are encouraged to use their available general electives wisely and focus on coursework that will assist them personally, academically and professionally.

QUEENS COLLEGE

CU NY