Bachelor of Science in Data Science & Analytics

KENNESAW STATE UNIVERSITY

Catalog Year: 2025-2026

Updated 6/4/2025

Total Degree Credit Hours: 120

I Institutional Priority	**2 Classes** 5 credit hours	**Complete the following course:** ECON 1000	**Complete <u>one</u> course from the following:** AMST 1102, ASIA 1102, BLCK 1102, COMM 1100, GWST 1102, ISD 2700, LALS 1102, LDRS 2300, PAX 1102, POLS 2401, RELS 1102
M Mathematics & Quantitative Skills	**1 Class** 3 credit hours	**Complete the following course:** MATH 1113	
P Political Science & U.S. History	**2 Classes** 6 credit hours	**Complete the following course:** POLS 1101	**Complete <u>one</u> course from the following:** HIST 2111 or HIST 2112
A Arts, Humanities & Ethics	**2 Classes** 6 credit hours	**Complete <u>one</u> course from the following:** CHIN 1001, CHIN 1002, ENGL 2110, ENGL 2120, ENGL 2130, ENGL 2140, FREN 1001, FREN 1002, GRMN 1001, GRMN 1002, HEBR 1001, HEBR 1002, ITAL 1001, ITAL 1002, JAPN 1001, JAPN 1002, KOR 1001, KOR 1002, LATN 1001, LATN 1002, PHIL 2010, PORT 1001, PORT 1002, RUSS 1001, RUSS 1002, SPAN 1001, SPAN 1002, WLC 1001, WLC 1002, WLC 2209	**Complete <u>one</u> course from the following:** ART 1107, DANC 1107, MUSI 1107, TPS 1107
C Communication in Writing	**2 Classes** 6 credit hours	**Complete the following course:** ENGL 1101	**Complete the following course:** ENGL 1102
T Technology, Mathematics, & Science	**3 Classes** 12 credit hours	**Complete the following course:** MATH 1190	**Select <u>two</u> course pairs from the following for a total of 8 credit hours:** CHEM 1211 **and** CHEM 1211L CHEM 1212 **and** CHEM 1212L PHYS 1111 **and** PHYS 1111L PHYS 1112 **and** PHYS 1112L PHYS 2211 **and** PHYS 2211L PHYS 2212 **and** PHYS 2212L BIOL 1107 **and** BIOL 1107L BIOL 1108 **and** BIOL 1108L *Please note: You <u>CANNOT</u> take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L*
S Social Science	**2 Classes** 6 credit hours	**Complete <u>one</u> course from the following:** HIST 1100, HIST 1111 or HIST 1112	**Complete <u>one</u> course from the following:** ANTH 1102, CRJU 1101, ECON 2105, ECON 2106, GEOG 1101, PSYC 1101, SOCI 1101, or STS 1101

Core Field of Study (18 credit hours)

	Prerequisites		
CSE 1321/L Programming & Problem Solving I	Lecture & Lab must be taken at the same time	4	
CSE 1322/L Programming & Problem Solving II	Min. grade of 'B' in CSE 1321/L & MATH 1113/1190/2202*	4	
MATH 2345 Discrete Mathematics Or **CSE 2300** Discrete Structures for Computing	MATH 1113 or MATH 1190 CSE 1321/L & MATH 1113/1190	3	
MATH 2202 Calculus II	MATH 1190	4	
STAT 2332 Probability & Data Analysis Or **STAT 1401** Elementary Statistics	MATH 1190 None	3	

CSE 1321/L must have a minimum grade of 'B'.

* - can be taken before or at the same time

Free Electives (16 credit hours)

Select 16 credit hours of 1000-4000 level coursework from the University Catalog. Students are encouraged to take courses that focus on a particular domain with data science applications. These hours can also be used to earn a minor in another discipline.

Major Requirements (38 credit hours)

	Prerequisites		
CSE 3153 Database Systems Or **CS 3410** Intro to Database Systems	CSE 1322/L	3	
DATA 3010 Computer Applications of Statistics	STAT 1401, STAT 3125 or STAT 2332	3	
STAT 3120 Statistical Methods I Or **STAT 3125** Biostatistics	STAT 1401 or STAT 2332 BIOL 1107, BIOL 1108 or CHEM 1212	3	
STAT 3130 Statistical Methods II	DATA 3010 & (STAT 3120/3125/2332)	3	
DATA 3230 Data Visualization	STAT 1401 or STAT 2332	3	
MATH 3260 Linear Algebra	MATH 1190	3	
DATA 3300 Data Science Ethics	STAT 3130	3	
DATA 4000 Data Science Communication	STAT 2332 or (DATA 3010 & (STAT 3120 or STAT 3125))	3	
DATA 4030 Programming in R Or **DATA 4140** Python for Data Science	DATA 3010 or STAT 3125 DATA 3010 & STAT 3130	3	
STAT 4210 Applied Regression Analysis	STAT 3130	3	
DATA 4310 Statistical Data Mining	STAT 3130	3	
DATA 4990 Data Science Capstone	STAT 4210	3	

+ 2 credit hours carried over from IMPACTS

Major Electives (6 credit hours)

Select 6 credit hours from the following list.

	Prerequisites		
DATA 3396 Cooperative Study	Coordinator approval	1-3	
DATA 3398 Internship	Coordinator & Dept chair approval	1-9	
STAT 4025 Clinical Trial Design	STAT 3125 or STAT 3120	3	
DATA 4030 Programming in R (if not already taken in major requirements)	DATA 3010 or STAT 3125	3	
STAT 4120 Applied Experimental Design	STAT 3130	3	
STAT 4125 Analysis of Human Studies	STAT 3130	3	
DATA 4330 Applied Binary Classification	STAT 4210	3	
DATA 4400 Directed Study	Instructor & Dept approval	3	
DATA 4490 Special Topics in Statistics	STAT 3130	3	
DATA 4140 Python for Data Science (if not already taken in major requirements)	DATA 3010 & STAT 3130	3	
CSE 4983 CSE Computing Internship	Senior Standing	3	