

# BACHELOR OF SCIENCE (BS) DATA ANALYTICS: DATA VISUALIZATION SPECIALIZATION

## Major Prerequisites (13 hours)

These courses may overlap with the General Education curriculum where appropriate. Courses in **BOLD** should be completed before submitting an application to the Data Analytics major. Online options may be available for courses marked ●. Please refer to the ASC General Education course list for GE online courses.

Department	Course	Hours	Term Offered
Math	<b>Math 1151</b> ● (1161 or 1181H) – Calculus I	5	AU/SP/SU
	<b>Math 1152</b> ● (1172, 2162 or 2182H) – Calculus II	5	AU/SP/SU
Computer Science & Engineering	<b>*CSE 1223</b> – Computer Programming in Java	3	AU/SP/SU

\*CSE 1222 or CSE placement level A can also fulfill this prerequisite; however, 1223 is *strongly* preferred.

## Core Requirements (51 hours)

The Data Analytics Core courses follow a strict pre-requisite structure. Some courses are only offered once per year. Failure to successfully enroll in and complete these courses will delay graduation.

Department	Course	Hours	Terms Offered
Math	Math 2568 – Linear Algebra	3	AU/SP/SU
Industrial & Systems Engineering	ISE 3230 – Systems Modeling and Optimization	3	AU
	ISE 5760 – Data Visualization	3	SP
Computer Science & Engineering	<b>CSE 2221</b> – Software I: Software Components	4	AU/SP/SU
	CSE 2231 – Software II: Development & Design	4	AU/SP/SU
	CSE 2321 – Foundations I: Discrete Structures	3	AU/SP/SU
	CSE 2421 or 3430 – Systems I: Computer Systems	4	AU/SP/SU
	CSE 3241 – Databases I: Computer Architecture	3	AU/SP/SU
	CSE 3244 or 5242 – Adv. DB & Cloud Computing	3	AU/SP
	CSE 5243 – Data Mining	3	AU/SP
Statistics	STAT 3201 – Probability for Data Analytics	3	AU/SP
	STAT 3202 – Statistical Inference for Data Analytics	4	AU/SP
	STAT 3301 – Statistical Modeling for Discovery I	3	AU
	STAT 3302 – Statistical Modeling for Discovery II	3	SP
	STAT 4620 – Statistical Learning	2	AU
	STAT 3303 – Statistical Decision Making	3	SP

## Data Visualization Specialization (16 hours)

DESIGN 5505 – Information Design	3	AU
CSE 5544 – Introduction to Data Visualization	3	AU/SP
ACCAD 5141 – Interactive Arts Media	3	EVERY OTHER SPRING
ACCAD 5150 – Emerging Trends in Data Visualization	3	EVERY OTHER SPRING
STAT 4911 – Capstone in Data Analytics	4	SP

## GENERAL EDUCATION

Please visit <http://artsandsciences.osu.edu/academics/current-students/advising/ge> for a list of the General Education curriculum requirements.