



**A.S. in Data Science**



**CATALOG YEAR:  
2024-25**

**B.S. in Business Administration with Data Analytics  
concentration**

CREDITS	MONTGOMERY COLLEGE Requirements for Associate's Degree	BOWTIE STATE UNIVERSITY Requirements for Bachelor's Degree
3	ENGL 101 - Introduction to College Writing*	ENGL 101
4	MATH 181 - Calculus I (MATF)	MATH 225 (Gen Ed – Math)
3	PSYC 100 - General Psychology (BSSD)**	PSYC 100 (Gen Ed – Elective I*)
3	COMM 108 or COMM 112 (GEEL)	COMM 101
3	MATH 117 or MATH 217	MATH 155
3	ENGL102 or ENGL103 (ENGF)	ENGL 102
3	PHIL 140 - Introduction to the Study of Ethics (HUMD)	Free elective
3	GEOG 130 - Global Geography (BSSD)**	Free elective
3	DATA 101 - Introduction to Data Science	DANL 280 (Gen Ed – Elective II*)
3	DATA 110 - Data Visualization and Communication	DANL 340
4	Natural Sciences Distribution with Lab (NSLD) †	Gen Ed – Science I
3	DATA 201 - Statistical Methods in Data Science	DANL Elective** - I
4	MATH 264 - Applications in Linear Algebra	MATH 228
4	CMSC 206 - Python Programming†	BUIS 305
3	Arts Distribution (ARTD)	Gen Ed – Elective III
4	Natural Sciences Distribution with Lab (NSLD) †	Gen Ed – Science I
4	DATA 205 - Capstone Experience in Data Science	DANL Elective - II
3	CMSC 246 -Introduction to SQL Using Oracle †	BUIS 362
3	ENGL 101 - Introduction to College Writing*	ENGL 101
<b>60</b>	<b>TOTAL CREDITS TRANSFERRED</b>	
<b>REMAINING BOWTIE STATE UNIVERSITY DEGREE REQUIREMENTS RECOMMENDED SEQUENCE UPON TRANSFER WITH ASSOCIATE'S DEGREE</b>		
	ACCT 211 - Principles of Accounting I	3
	ACCT 212 - Principles of Accounting II	3
	BUAD 350 - Business Law I	3
	BUIS 360 - Information Systems for Management	3
	ECON 321 - Money, Banking and Financial Markets	3
	ECON 483 - Quantitative Methods	3
	ENGL 361 - Technical and Professional Writing	3
	FINA 320 - Principles of Finance	3
	MGMT 101 - Introduction to Business	3
	MGMT 241 - Principles of Management	3
	MGMT 344 - Organizational Behavior	3
	MGMT 356 - Professional Development I	2
	MGMT 358 - Professional Development II	1
	MGMT 480 - Production and Operational Management	3
	MGMT 440 - Business Strategy & Pol	3
	MKTG 231 - Principles of Marketing	3
	Business Elective (300 or above)	3
	DANL 480 - Big Data Analytics	3
	DANL 490 - Capstone in Data Analytics	3
	BUIS 462 - Decision Science and Analytics	3
	PHIL 103 - Introduction to the Principles of Reasoning	3
	HIST 114 - African American History to 1865 or HIST 115 - African American History	3
	ACCT 211 - Principles of Accounting I	3

**MONTGOMERY COLLEGE NOTES**

\* ENGL 101/ENGL 101A, if needed for ENGL 102/ ENGL 103 or program elective.

\*\* Behavioral and Social Science Distribution (BSSD) courses must come from different disciplines. Contact department advisor for transfer requirements for specific schools.

\*\*\* Students may substitute MATH 284 for MATH 264

‡ Students are strongly encouraged to take two consecutive lab sciences courses. Examples include BIOL 105/106 or CHEM 131/132 or PSCI 101/102 or PHYS 203/204

† Program Electives include: strongly recommended CMSC 206, CMSC 246, and GEOG 240; CMSC 206 and CMSC 246 will provide students with programming skills in Python and SQL and GEOG 240 provides foundational knowledge of Geographic Information Systems (GIS); other program electives may include any MATH or CMSC course, or GEOG 130 or GEOG 260. Not all program elective options transfer to all institutions. Please consult a data science program advisor or the transfer institution before selecting program elective courses.

**BOWIE STATE UNIVERSITY NOTES**

\* Approved list of courses for general education courses can be found in the BSU catalog at <https://bowiestate.edu/academics/catalogs.php>

\*\* Approved list of courses for DANL elective courses can be found in the BSU catalog at <https://bowiestate.edu/academics/catalogs.php> or [https://catalog.bowiestate.edu/preview\\_program.php?catoid=20&pooid=1974&returnto=1430](https://catalog.bowiestate.edu/preview_program.php?catoid=20&pooid=1974&returnto=1430)

\*\* A minimum of grade C is required for business, economics, English and data analytics courses.

^ MC's HLTH160 = BSU's HEED102; MC's HLTH200 = BSU's HEED200