

2025 - 2026 Old Dominion University Catalog

Bachelor of Science in Mathematics with a Major in Big Data Analytics (BS) (w/ VCCS Equivalencies)

Sample four year curriculum with a suggested ordering of courses. Students may re-order as needed.

** Indicates not automatically waived with transferrable associates degree. C or better required for transfer. Courses in green are waived by the completion of an Associate degree (Not eligible for Applied Associate degrees). Associate in Science recommended for ease of transfer.*

YEAR 1 - FRESHMAN (32 CREDITS)			
FALL SEMESTER (16 credits)		SPRING SEMESTER (16 credits)	
<u>General Education Coursework:</u>	<u>VCCS Equivalency:</u>	<u>General Education Coursework:</u>	<u>VCCS Equivalency:</u>
Human Behavior: ECON 202S recommended	Transfer Equivalency Guide	Oral Communication	Transfer Equivalency Guide
MATH 211 (4 credits)	MTH 173, 263 or 273*	MATH 212 (4 credits)	MTH 174, 264, or 274*
Information Literacy and Research: CS 121G preferred. IT 150G is acceptable substitute for the Actuarial Mathematics Major or the Big Data Analytics Major	Transfer Equivalency Guide	Impact of Technology: BDA 200T preferred	Transfer Equivalency Guide
ENGL 110C	ENG 111*	ENGL 211C or 231C	ENG 112, 210, 115 or 131*
Elective or Language and Culture I (May be waived; See requirement details)	Transfer Equivalency Guide	Elective or Language and Culture II (May be waived; See requirement details)	Transfer Equivalency Guide
YEAR 2 - SOPHOMORE (28 CREDITS)			
FALL SEMESTER (14 credits)		SPRING SEMESTER (14 credits)	
<u>General Education Coursework:</u>	<u>VCCS Equivalency:</u>	<u>General Education Coursework:</u>	<u>VCCS Equivalency:</u>
Nature of Science I (Course depends on major chosen. See requirement details)**	Transfer Equivalency Guide	Nature of Science II (Course depends on major chosen. See requirement details)**	Transfer Equivalency Guide
Human Creativity	Transfer Equivalency Guide	Interpreting the Past	Transfer Equivalency Guide
	CSC 221 (If CSC 221 is taught in C++ , transfers as CS 150, if taught in Java, as CS 151, if taught in Python, as CS 153)*	Philosophy & Ethics (PHIL 120P recommended)	Transfer Equivalency Guide
CS 151 or 153 (4 credits)			
MATH 307		MATH 312 (4 credits)	
YEAR 3 - JUNIOR (30 CREDITS)			
FALL SEMESTER (15 credits)		SPRING SEMESTER (15 credits)	
<u>Major Coursework:</u>	<u>VCCS Equivalency:</u>	<u>Major Coursework:</u>	<u>VCCS Equivalency:</u>
STAT 310 or 331 (Statistics/Biostatistics and Actuarial Mathematics majors must take STAT 331)		STAT 330 or 431 (Statistics/Biostatistics and Actuarial Mathematics majors must take STAT 431)	
MATH 311W		MATH 316	
Literature	Transfer Equivalency Guide	MATH 317	
Major course***		Major course***	
<u>Upper Division Gen. Ed. Coursework:</u>		<u>Upper Division Gen. Ed. Coursework:</u>	
Upper-Division General Education Course or Minor		Upper-Division General Education Course or Minor	
YEAR 4 - SENIOR (30 CREDITS)			
FALL SEMESTER (15 credits)		SPRING SEMESTER (15 credits)	
<u>Major Coursework:</u>	<u>VCCS Equivalency:</u>	<u>Major Coursework:</u>	<u>VCCS Equivalency:</u>
Major course***		Major course***	
Major course***		Major course***	
Elective or major course if Big Data Analytics major***		Elective or major course if Big Data Analytics major***	
Elective or STAT 310***		Elective****	
<u>Upper Division Gen. Ed. Coursework:</u>		<u>Upper Division Gen. Ed. Coursework:</u>	
Minor or elective		Minor or elective	

***The Nature of Science requirement need not be in the same science. However, PHYS 231N-232N are recommended for the Applied Mathematics major; and BIOL 110N/111N, or BIOL 112N/113N, BIOL 117N/BIOL 118N, or BIOL 121N/122N-BIOL 123N/124N are recommended for the Statistics/Biostatistics major.*

*****Elective credit will be needed to meet the minimum requirement of 120 credit hours, consult Degree Works and with your advisor for options.*

Requirements for graduation include a minimum cumulative grade point average of 2.00 overall and in the major, a grade of C or better in all courses required for the major, including prerequisite courses, 120 credit hours, which must include both a minimum of 30 credit hours overall and 12 credit hours in upper-level courses in the major program from Old Dominion University, completion of ENGL 110C, ENGL 211C or 231C, and a writing intensive (W) course in the major with a grade of C or better, and completion of Senior Assessment.

This four-year plan is a suggested curriculum to complete this degree program in four years. It is just one of several plans that will work and is presented only as broad guidance to students. Each student is strongly encouraged to develop a customized plan in consultation with their academic advisor. Additional information can also be found in Degree Works.