Transfer Guide

Catalog Year: 2025-2026

University of Mary Washington Bachelor of Science in Mathematics

Associate Transfer Degree Plan in Mathematics

COURSE REQUIREMENTS

Complete at VCCS				Complete at University of Mary Washington		
BACHELOR'S DEGREE REQUIREMENT	**SATISFIED BY**			**BACHELOR'S DEGREE REQUIREMENT**		
Course	**Credits**	**CC Course**	**Notes**	**Course**	**Credits**	**Notes**
SDV 100 does not transfer.	1-2	SDV 100 College Success Skills or 101 Orientation		MATH 300	4	Linear Algebra with Applications
ENGL 101; Writing Intensive	3	ENG 111 College Comp I		STAT 280	3	Statistical Methods, Speaking Intensive
ENGL non-major; Writing Intensive	3	ENG 112 College Comp II or 113 Tech-Prof Writing		STAT 381	3	Probability and Statistical Inference I, Writing Intensive
Methods of Investigation Gen Ed: Humanities course 1	3	Any UCGS Art or Humanities	These two courses must come from two different disciplines.	MATH 305	1	Mathematics as a Profession, AMW (After Mary Washington)
Methods of Investigation Gen Ed: Arts & Literature	3	Any UCGS Art, Humanities, or Literature		**MATH Concentration**	****	**This section describes requirements for the concentration in Mathematics**
Methods of Investigation Gen Ed: Humanities course	3	Any UCGS Social & Behavioral Science (not History)		MATH 330	3	Foundations of Mathematics
Methods of Investigation Gen Ed: Social Science	3	Any UCGS History		MATH 431	3	Abstract Algebra I
Methods of Investigation Gen Ed: Natural Science	4	BIO 101, CHM 111, or PHY 241, GOL 105, GOL 106, GOL 110		MATH 471	3	Real Analysis I

MATH 121 - Methods of Investigation Gen Ed: Quantitative Reasoning course 1	4	MTH 263 Calc I	required in all concentrations	MATH 300/400 level electives	6	Mathematics courses number 300 or higher

STAT 180 Methods of Investigation Gen Ed: Quantitative Reasoning course 2	3	MTH 245	required in all concentrations	Other electives	3	Mathematics or Statistics courses numbered 207 or higher, Physics courses 107 or higher
World language at the level taken (101, 102, or 201)	3-4	BIO 102, CHM 112, GOL 105-106-110, or PHY 242 MTH 245, 264, 265, CST 100 or 110, World languages		End (MATH)	***	**End MATH Concentration**
MATH 122	4	MTH 264 Calc II	required in all concentrations	**AMS Concentration**	****	**This section describes requirements for the concentration in Applied Mathematics and Statistics**
MATH 201 Introduction to Discrete Mathematics	3	MTH 288 Discrete Math.	Required in all concentrations	MATH 312	3	Differential Equations (MTH 267 VCCS)
				STAT 320	3	Applied Regression Analysis
				MATH 351	3	Numerical Analysis I
				MATH 400 level electives	6	*At least one 400-level course should be MATH 411, MATH 421, MATH 453, or MATH 481. Electives: MATH 352, MATH 411, MATH 421, MATH 453, MATH 471, MATH 481, MATH 491, STAT 361, STAT 382, STAT 420, STAT 461, Any STAT 491, ECON 462, PSYC 360
				Other electives	3	Any course from the above list
				End AMS Concentration		**End AMS Concentration**
				Data Science (DS) Concentration		**This section describes requirements for the concentration in Data Science**
				DATA 101	3	Introduction to Data Science.

				DATA 219	3	Foundations of Data Science
				CPSC 220	4	Computer Programming and Problem Solving
				CPSC 225	1	Software Development Tools
				DATA 350	4	Practicing Data Science
				STAT 320	3	Applied Regression Analysis

				DATA 370 or 420	3	
				DATA 401 or 419	3	
				Elective	3	Any DATA or STAT course at the 300 or 400 level
				End DS Concentration		**End DS Concentration**
CREDITS PRE-TRANSFER: 60-62				**CREDITS POST-TRANSFER: 58-60**		

TRANSFER GUIDANCE

Guaranteed Admission Agreement.

By meeting the following criteria, you are guaranteed admission to the BS in Mathematics at the University of Mary Washington:

Earn a transfer associate degree in mathematics
Earn a minimum GPA of 3.0 for your associate degree.
Earn grades of "C" or higher in all community college courses.

Please create an account through the www.TransferVirginia.org portal to indicate your intent to use this guarantee for admission to the University of Mary Washington.

IMPORTANT LINKS & DATES:

- **University Transfer Center:** https://www.umw.edu/admissions/transfer/
- **Admission Application:** https://www.umw.edu/admissions/transfer/
- **Financial Aid:** https://www.umw.edu/financialaid/

WHAT SHOULD I CONSIDER WHEN SELECTING COURSES?

- Create a schedule for all required courses, pay attention to prerequisites, and when courses are offered, complete your first math and English courses in your first year. For help, see Transfer Steps and Resource Center at www.TransferVirginia.org

- UMW requires proficiency in a second language as part of the general education requirements. This can be satisfied in a number of ways including completing four years of language in high school, transferring credits from a community college, or completing a sequence of language courses through the 201 level at UMW. All of the options for satisfying this requirement are found in the UMW catalog: https://catalog.umw.edu/undergraduate/general-education/general-education-course-list/

- Connect with an advisor at your community college and UMW within your first year. College Connect available in your account of www.TransferVirginia.org
- UMW requires proficiency in a second language as part of the general education requirements. This can be satisfied in several ways, including completing four years of the same language in high school, transferring credits from a community college, or completing a sequence of language courses through the 201 level at UMW. American Sign Language is accepted as a second language. All of the options for satisfying this requirement can be found in the UMW Catalog: https://catalog.umw.edu/undergraduate/general-education/general-education-course-list
- The UMW Mathematics major includes three concentrations that equip students with the skills to solve real-world problems in industry or government or pursue further studies in applied mathematics, data science, mathematics or statistics.
- Our curriculum emphasizes and nurtures students' writing, communication, teamwork, and analytical reasoning skills. These skills are learned within and through the various courses as students pursue individual and group projects on cutting-edge situations from business, industry, government and advanced areas in the respective fields.
- The Mathematics program at UMW integrates free or open software in many of our courses. Thus, students do not need to purchase additional software.
- The Mathematics major features three tracks or concentrations in applied mathematics and statistics, data science, and mathematics. Students can also pursue minors in actuarial science, applied mathematics, applied statistics, and mathematics. Overall, a robust and engaging program is available to serve the career and professional interests of every student.

Transfer Degree Completion: Transfer students with a VCCS transferable associate degree have completed the UMW general education requirements except second language competency, digital intensive, diverse and global perspectives, after Mary Washington, and beyond the classroom general education requirements. Several of these requirements are integrated into the mathematics major. UMW allows students to satisfy these requirements by qualifying transfer coursework.

Dual Enrollment- Completion of Associate Degree in HS: Students participating in dual enrollment programs are considered freshman applicants. Dual enrollment courses taken at the high school are treated identically with the same course when taken on a college campus; dual enrollment status does not affect the transferability of the course.

WHAT IS THE IMPACT ON THE DEGREE OF WORK I HAVE ALREADY COMPLETED?

Credit for Prior Learning: UMW accepts credit for AP, iB, CLEP, Cambridge, and other qualifying previous coursework. Equivalencies are provided here:

https://academics.umw.edu/registrar/transfer-information/transferring-credit-ap-ib-or-previous-coursework/freshmen-international-baccalaureate-ib-credit/

Virginia Community College System courses which receive guaranteed equivalent credit are provided here:
https://academics.umw.edu/registrar/transfer-information/resources-and-publications/babs-transfer-credit-guide/transferable-credit/virginia-community-college-system-vccs/

Catalog Year: Students must complete general education requirements associated with the academic year that they enroll at UMW. Students complete major requirements associated with the academic year in which they declare their major.

IS THIS COLLEGE RIGHT FOR ME?

- Home is precisely what UMW will come to feel like. Our campus is gorgeous, green, and full of opportunity. Join a club sports team. Audition for a musical. Lead the way in Student Government Association. Train with our esports team. Or sit back, relax, and take it all in from the cozy comfort of Ball Circle.
- UMW is a small university located in suburban Fredericksburg, VA. We offer small class sizes and courses are taught by faculty committed to student learning and success.
- UMW offers high impact experiences beyond the classroom. Faculty are committed to collaborating with students on research projects and outreach experiences.
- UMW is located between Washington DC and Richmond, VA in the largest technology corridor in Virginia. UMW students enjoy a multitude of internship opportunities where they can apply their academic knowledge while gaining professional experience. UMW students receive support with resumes and job searches through the department and University resources and can earn academic credit for qualifying internship experiences.

• Learn more about our college at www.TransferVirginia.org

DID YOU KNOW THAT…

- UMW has a co-enrollment agreement with Germanna Community College, which allows Germanna students to take up to five courses at UMW to transfer back to their Germanna associate degree program. This allows students to receive UMW course experiences at Germanna tuition rates. Students must submit a letter of intent after completing 15 credits at Germanna: https://www.umw.edu/admissions/wp-content/uploads/sites/6/2022/05/Germanna-CoEnrollment-Form2022.pdf

- Completing your Associate transfer degree post-high school satisfies all lower division general education requirements and increases the chance of completing your bachelor's degree.

- Exceeding 3 years or 90 credits at your community college means you may have exhausted your financial aid at that college and have limited your future financial aid at UMW.

Explore possible careers, salaries, and job outlook at www.TransferVirginia.org.

WHAT CAN I DO WITH THIS DEGREE?

further studies are plentiful, including those supported by employers and a mix of assistantships and fellowships from graduate schools.

PROGRAM SUCCESSES & HIGHLIGHTS

- UMW graduates work as actuaries, data scientists, security analysts, statisticians, mathematicians, professors, scientists, etc
- UMW graduates have excellent success rates for admission to graduate programs for further study at top institutions and in diverse fields.
- All students have the opportunity to conduct research with faculty members. Several students publish and present their work at national conferences each year. Students are competitively selected to participate in the UMW Summer Science Institute, where they are paid to conduct research alongside faculty members. Additional opportunities for funded research are available.

WHAT ARE MY CHANCES FOR GETTING ACCEPTED?

- With an associate's degree and a 3.0 minimum cumulative GPA, you may qualify for UMW's Guaranteed Admissions Agreement with the Virginia Community College System (VCCS) and Richard Bland College. Additional details are available here: https://www.umw.edu/admissions/transfer/our-commitment/guaranteed-admission-agreement/
- Each fall, UMW enrolls approximately 300 students from the Virginia Community College System and other schools inside and outside of Virginia.
- Learn more about applying at www.TransferVirginia.org
- Most students have an internship at some point during their years at UMW. The University and department support students in their job search through resume workshops, individual consultations, and campus job fairs.
- UMW has accelerated master's degree partnerships with Virginia Tech and George Mason University which allow students to count some courses toward both their UMW BS in Mathematics degree and their master's degree. Additional details of these agreements are available here: https://www.umw.edu/admissions/first-year-admission/accelerated-early-admission-partnership-programs/
- Students must earn at least 30 credits at UMW as a degree-seeking student (not including physical education credits).
- Students must earn a GPA of 2.0 in both their major and overall coursework in order to complete their degree.