Virginia Commonwealth University Bachelor of Science in Bioinformatics with a concentration in Biological/Genomic Sciences

Catalog years: 2025-2027

Associate Transfer Degree Plan in Biology

COURSE REQUIREMENTS

	Complete at VCCS	Complete at VCU				
BACHELOR'S DEGREE REQUIREMENT		SATISFIED BY		BACHELOR'S DEGREE REQUIREMENT		
Course	Credits	CC Course	Notes	Course	Credits	Notes
UNIV 101	1-2	SDV 100 College Success Skills or 101 Orientation		BIOL 300	3	Take at VCU unless BIO 206 is taken at CC
UNIV 111-112	3	ENG 111 College Comp I	UNIV 111 is waived and students receive 3 credits for UNIV 112.	BIOL 310	3	Take at VCU unless BIO 256 is taken at CC
UNIV 200	3	ENG 112 College Comp II		BNFO 101	1	Take in first year at VCU.
General Education	3	Any UCGS Art or Humanities (Block II)	These two courses must come from two different disciplines.	BNFO 201	3	Take in first year at VCU.
General Education	3	Any UCGS Art, Humanities, or Literature (Block II)		BNFO 301	3	
General Education	3	Any UCGS Social & Behavioral Science (Block III)	Cannot be a history course.	BNFO 411	2	
BIOL/Z 151	4	BIO 101 General Biology I	Students who complete BIO 101 will not be required to take BNFO 251 at VCU.	BNFO 420	3	
Math 200	4	MTH 263 Calculus I		CMSC 255	4	
General Education	3	Any UCGS History (Block VI)		STAT 321	3	
BIOL/Z 152	4	BIO 102 General Biology II	Students who complete BIO 102 will not be required to take BNFO 252 at VCU. However, we recommend students consider taking BNFO 252 for its unique lab experience.	BNFO/BIOL 540	3	
CHEM/Z 101	4	CHM 111 General Chemistry I		BNFO/BIOL 541 or BIOZ 476	2	
CHEM/Z 102	4	CHM 112 General Chemistry II		CHEM 301	3	Take at VCU unless CHM 241 is taken at CC.
BIOL 300 + BIOZ 391 or BIOL/Z 310	4	BIO 206 Cell Biology or BIO 256 Genetics	Select one.	CHEM 302	3	Take at VCU unless CHM 242 is taken at CC.

CHEM/Z 301 Or PHYS 201 Or PHYS 207	4-5	CHM 241 Organic Chem I + CHM 245 Lab Or PHY 201 Or PHY 241		CHEM 403	3		
CHEM/Z 302 Or PHYS 202 Or PHYS 208	4-5	CHM 242 Organic Chem II + CHM 246 Lab Or PHY 202 Or PHY 242	Select one	Concentration electives	10		
MATH 151	5-6	MTH 161-162 Precalculus I-II or MTH 167 Precalc with Trig		PHYS 201 or PHYS 207	4-5	Take at VCU unless PHY 201 or PHY 241 is taken at CC.	
STAT 212	3	MTH 245 Statistics I		Electives	5-6		
		Additional transfer electives, if needed to meet 60 credits					
	CREDITS PRE-TRANSFER: 60				CREDITS POST-TRANSFER: 60		

TRANSFER GUIDANCE

This degree program is covered by VCU's Guaranteed Admission Agreement.

By meeting the following criteria, you are guaranteed admission to the BS in Bioinformatics:

- Earn the transfer associate degree.
- Earn a minimum GPA of 2.5 for your associate degree. VCU will recognize the cumulative GPA as recorded on the VCCS transcript and not recalculate based on multiple course attempts.
- Complete a minimum of 30 credits at VCCS institution
- Earn grades of "C" or higher in all community college courses.

IMPORTANT LINKS & DATES:

- University Transfer Center: https://transfer.vcu.edu/.
- Register Intent to Transfer: https://ugradadmissions.vcu.edu/register/letterofinterest.
- Admission Application: By March 15 for fall admission and November 1 for spring at https://www.vcu.edu/admissions/apply/.
- Financial Aid: https://semss.vcu.edu/our-services/financial-resources-and-guidance/.
- FAFSA Free Application for Federal Student Aid: March 1 for fall semester at https://studentaid.gov/h/apply-for-aid/fafsa.

WHAT SHOULD I CONSIDER WHEN SELECTING COURSES?

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

 Connect with an advisor at your community college and the VCU Transfer Center (https://transfer.vcu.edu/) in your first semester.

IS THIS DEGREE RIGHT FOR ME?

The bioinformatics curriculum blends foundational courses in biology, math, chemistry and computer science with a core of hands-on, problem-solving bioinformatics courses. It allows undergraduates an unusual opportunity to learn molecular biology by actually doing it--reading scientific papers, doing "wet-lab" experiments, creating bioinformatics programs, and designing individual and team research investigations. The program includes the Life Sciences general education, specific training in the collateral coursework and bioinformatics core, and focused training in the chosen concentration.

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

- Associate Transfer Degree Completion: The completion of a transfer associate degree results in all lower-division general education requirements being met when you transfer to VCU.
- Dual Enrollment Completion of Associate Degree in HS: The completion of an associate
 degree concurrent with high school results in 60 credits of coursework applied towards your
 degree and VCU's general education courses will be satisfied. High school students must apply
 to VCU as freshman applicants for orientation and engagement purposes.
- Credit for Prior Learning: VCU accepts AP, IB, Cambridge, CLEP, DANTES, and military credits.
- Catalog Year: VCU will honor the degree requirements of the VCU Undergraduate Bulletin in effect at the time of the student's first post-high school enrollment into an appropriate associate degree at the two-year institution. Students must stay enrolled at their community college and take no more than four years to complete their associate degree. Students must also enroll at VCU within one year of completing their associate degree.

IS THIS COLLEGE RIGHT FOR ME?

- Located in downtown Richmond, within two hours of the beach, the mountains and Washington DC, VCU provides top-ranked academic programs, research opportunities and an urban setting so students can live and learn in the real world.
- VCU is a large, public research institution dedicated to the success and well-being of students and the Richmond community.
- Diversity, inclusion and equity are deeply ingrained core values at VCU. If you are looking to connect with a broad range of people, come join us!

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

DID YOU KNOW THAT...

- Completing your associate transfer degree satisfies all lower division general education requirements and increases the likelihood you will complete your bachelor's degree?
- Exceeding 3 years or 90 credits at your community college could exhaust your financial aid there and reduce your future financial aid at VCU?

WHAT CAN I DO WITH THIS DEGREE?

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

PROGRAM SUCCESSES & HIGHLIGHTS

Bioinformatics majors have broad training that prepares them for a variety of post-graduate careers including biotech, data analytics and post-secondary education such as medical and

graduate school. The median time to graduation for bioinformatics majors is 4 years, with our majors graduating at a higher rate than the average student at VCU.

WHAT ARE MY CHANCES FOR GETTING ACCEPTED?

If you apply through general application instead of through the Guaranteed Admission Agreement, you will be considered for admission with all other transfer applicants.

Learn more about applying at www.TransferVirginia.org.

DO MORE WITH YOUR DEGREE!

Bioinformatics majors can choose between three concentrations, each drawing from a component discipline: biological sciences, computational sciences, or statistical sciences. Many of our students choose to double major with Biology, Chemistry, and Computer Science among the more common second majors. Advanced students have an opportunity to enter into our accelerated masters' program, allowing them to earn both B.S. and M.S. degrees in a reduced time period. This degree also lends itself well to students who are interested in pursuing double majors, minors, and additional pathways for study including Honors or certificates.

OTHER THAN CLASSES, ARE THERE OTHER PROGRAM REQUIREMENTS?

All students must complete at least one VCU "REAL" experiential learning activity in order to graduate from VCU. Examples of REAL activities include: internships, research, and service learning. This requirement may be satisfied by completing a 300-level (or higher) REAL course or through an approved REAL co-curricular experience.

Learn more at https://real.vcu.edu/.

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