

Virginia Commonwealth University Bachelor of Science in Biomedical Engineering

Associate Transfer Degree Plan in Engineering

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 SDV 101 Orientation to _		EGRB 101	2	Take in first year at VCU
UNIV 111-112	3	ENG 111 College Comp I	UNIV 111 is waived and students receive 3 credits for UNIV 112.	EGRB 209	4	Take in first year at VCU
UNIV 200	3	ENG 112 College Comp II		ENGR 395	1	Take in first year at VCU
General Education	3	Any UCGS Art, Humanities or Literature course (Block II)		EGRB 215 or CMSC 210	3	
General Education	3	Any UCGS Art, Humanities or Literature course (Block II)	This course must be from different category than previous course.	EGRB 301	3	
General Education	3	Any UCGS History course (Block VI)		EGRB 307	4	
General Education	3	Any UCGS Social & Behavioral Science (Block III - not History)		EGRB 310	4	
MATH 200	4	MTH 263 Calculus I		EGRB 315	3	
MATH 201	4	MTH 264 Calculus II		EGRB 401 + EGRB 402	6	
MATH 307	4	MTH 265 Calculus III		EGRB 427	3	
MATH 310	3	MTH 266 Linear Algebra		EGRE 206	4	EGR 271 at community college transfers as equivalent to EGRE 206
MATH 301	3	MTH 267 Differential Equations		EGRB 303 or EGRB 308	3-4	

PHYS 207	4	PHY 241 University Physics I		STAT 441	3	
PHYS 208	4	PHY 242 University Physics II		Science or engineering elective	3-4	
CHEM/Z 101	4	CHM 111 General Chemistry I		Technical electives	21	
EGRB 102	2	EGR 121 Foundations of Engineering				
EGRB 104	3	EGR 122 Engineering Design	Need both EGR 121 and 122 to receive credit for EGRB 102 + 104			
	3	EGR 240 Statics				
EGMN 102 + EGRB 203	3	EGR 246 Mechanics of Materials	Need both EGR 240 and 246 to receive credit for EGMN 102 and EGRB 203			
CHEM/Z 102	4	CHM 112 General Chemistry II				
BIOL/Z 151	4	BIO 101 General Biology I	Substitutes for EGRB 111			
CREDITS PRE-TRANSFER: 68				CREDITS POST-TRANSFER: 67-70		

TRANSFER GUIDANCE

Guaranteed Program Admission Agreement for VCU Engineering

By meeting the following criteria, you are guaranteed admission to the BS in Biomedical Engineering program at VCU

- Earn a transfer associate degree (AS or AA&S in Engineering).
- Earn a minimum GPA of 3.0 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 "B" or higher in all your EGR, MTH, and science courses.
- Earn grades of "C" or higher in all other 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 any math prerequisites 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 within your first semester through your account at www.TransferVirginia.org.
- Contact VCU advisor about summer course options prior to enrollment at VCU.

IS THIS DEGREE RIGHT FOR ME?

Biomedical engineers develop devices and procedures that solve medical and health-related problems by combining their knowledge of biology and medicine with engineering principles and practices. Many do research, along with medical scientists, to develop and evaluate systems and products such as artificial organs, prostheses (artificial devices that replace missing body parts), instrumentation, medical information systems, and health management and care delivery systems. Biomedical engineers also may design devices used in various medical procedures,

imaging systems such as magnetic resonance imaging (MRI), and devices for automating insulin injections or controlling body functions. Most engineers in this specialty need a sound background in another engineering specialty, such as mechanical or electronics engineering, in addition to specialized biomedical training. Some specialties within biomedical engineering are biomaterials, biomechanics, medical imaging, rehabilitation engineering, and orthopedic engineering.

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 course work applied towards your degree and VCU's general education courses satisfied. High school students should 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 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 of VCU.

Learn more about our college at www.TransferVirginia.org

DID YOU KNOW THAT...

- 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 VCU?

WHAT CAN I DO WITH THIS DEGREE?

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

PROGRAM SUCCESSES & HIGHLIGHTS

From labs investigating the molecular mechanisms of cellular mechano-transduction, to labs developing novel tools to image cardiac hemodynamics, to labs exploring novel methods of improving rehabilitation, VCU Biomedical Engineering is on the cutting edge of research at the interface of biology, medicine and engineering.

WHAT ARE MY CHANCES FOR GETTING ACCEPTED?

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

Learn more about applying to VCU at <https://www.vcu.edu/admissions/apply/transfer/>

DO MORE WITH YOUR DEGREE!

The accelerated B.S. and M.S. programs allows qualified students to earn both the B.S. and a M.S. in Computer Science or Engineering in a minimum of five years by completing approved graduate courses during the senior year of their undergraduate program.

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/>

