

Bachelor of Science in Biomedical Engineering

Associate Transfer Degree Plan in Engineering

COURSE REQUIREMENTS

Complete at VCCS				Complete at Virginia Tech							
BACHELOR'S DEGREE REQUIREMENT		SATISFIED BY		BACHELOR'S DEGREE REQUIREMENT		1 st sem (spring)	2 nd sem (fall)	3 rd sem (spring)	4 th sem (fall)	5 th sem (spring)	
Course	Credits	CC Course	Notes	Course	Credits	Notes					
VT 1XXX	1-2	SDV 100 or 101		BIOL 1105	3	If not taken at VCCS					
ENGL 1105	3	ENG 111		BMES 2104	3	Need to complete BMES 2104, ECE 3054, and ESM 2074 in first semester in order to take BMES 3034 and BMES 3184 in second semester.					
ENGL 1106	3	ENG 112		ECE 3054	3						
Pathways Concept 2	3	Any UCGS Art or Humanities		ESM/AOE 2074	2						
Pathways Concept 2	3	Any UCGS Art, Humanities, or Lit	This course must come from a different group than prior requirement.	MSE 2034	3						
Pathways Concept 3	3	Any UCGS History		BMES 3024	2						
Pathways Concept 3	3	Any UCGS Social/Behav Science	This course may not be a history course.	ESM 3234	3	Fall only; ESM 2304 pre-req					
MATH 1225	4	MTH 263		BMES 2014	1	Fall only					
MATH 1226	4	MTH 264		STAT course	3						
MATH 2204	4	MTH 265		BMES/BMVS 4064	3	Fall only					
MATH 2114	3	MTH 266		BMES 3034	2						
MATH 2214	3	MTH 267		BMES 3184	3	Spring only					
PHYS 2305	4	PHY 241		Technical Electives	21	Seven courses (2 taken in 3 rd semester, 2 taken in 4 th , and 3 taken in 5 th)					
PHYS 2306	4	PHY 242		BMES 4015	4016	6	Year-long design project taken in final academic year. (Sequence must be taken in fall + spring order)				

CHEM 1035+1045	4	CHM 111		BMES 4134	3	Fall only
ENGE 1215	2	EGR 121			1	Free elective (taken any term)
ENGE 1216	3	EGR 122				Career Bridge Experience
ESM 2104	3	EGR 240		Career Bridge Experiences help prepare students for post-graduation life and develop a professional identity. Internships, Co-ops, and Undergraduate Research are examples of possible Career Bridge Experiences. Because some of these experiences are not credit bearing, the ENGE 3900 course is used to track and assess student participation in Career Bridge and to record fulfillment of this degree requirement on the transcript. Students should enroll in ENGE 3900 during the semester (or one of the semesters) that they undertake the Career Bridge Experience. Enrollment in ENGE 3900 requires approval of a Career Bridge Plan. Further information about acceptable Career Bridge Experiences and the process for submitting a Career Bridge Plan are explained within your major courses.		
ESM 2204	3	EGR 246				
ESM 2304	3	EGR 245				
BIOL 1105	4	BIO 101				
CREDITS PRE-TRANSFER: 67-68				CREDITS POST-TRANSFER: 62 (degree total credits 124)		

TRANSFER GUIDANCE

Guaranteed Admission Agreement

Students who complete the prescribed curriculum and meet the criteria below are guaranteed admission into Virginia Tech and directly into the Biomedical Engineering Major:

- Earn a transfer associate degree AS in Engineering (or AS/AA&S in Science with Specialization in Engineering)
- Earn a minimum of 3.2 GPA for the associate degree.
- Applicants for this major can be guaranteed for the Spring, Summer, or Fall entry terms (Spring is strongly recommended).
- Register your intent in the Transfer Virginia Portal to use this guarantee after the completion of 15 credit hours and prior to the completion of 30 hours.
- Complete all steps of the formal admissions application process by the appropriate deadlines for the intended term of entry. Most applicants pursuing guaranteed admission will apply as they are finishing their associate degree.

IMPORTANT LINKS & DATES:

- **Transfer Initiatives Office:** <https://advising.vt.edu/transfer-student-advising.html>
- **Register Intent to Transfer:** By completion of 30 hours at <https://www.TransferVirginia.org>
- **Admission Application:** Find full application instructions and applicable deadlines at: <https://vt.edu/admissions/transfer/checklist.html>
- **Financial Aid:** <https://www.finaid.vt.edu>
- **FAFSA** - Free Application for Federal Student Aid: March 1 for fall semester at <https://www.studentaid.gov>

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 <https://www.TransferVirginia.org>
- Connect with an advisor at your community college and Virginia Tech within your first year. College Connect available in your account of <https://www.TransferVirginia.org>

IS THIS DEGREE RIGHT FOR ME?

- Students should begin this degree in a spring semester for ease of progression/prerequisites. With Associate degree earned, it will take a minimum of 5 semesters to earn this degree.
- Students are encouraged to participate in undergraduate research with faculty at Virginia Tech

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

- **Associate Transfer Degree Completion:** The completion of an Associate Degree results in all lower-division general education requirements being met when you transfer to Virginia Tech.
- **Credit for Prior Learning:** AP, IB, and CLEP are evaluated for credits <https://www.registrar.vt.edu/Advanced-Standing-Transferable-Credit.html>
- **Catalog Year:** Catalog year determined by first semester of attendance at Virginia Tech.
- **Dual Enrollment – Completion of Associate Degree in HS:** The completion of an Associate Degree concurrent with high school results in up to half the required credits (124) towards a BME degree, with all general education courses satisfied. Students will be enrolled as a freshman for orientation and engagement purposes.

IS THIS COLLEGE RIGHT FOR ME?

- Virginia Tech's College of Engineering undergraduate programs are ranked 13th in the nation, according to U.S. News & World Report
- Located in rural area, with 2600-acre campus, 37,000 on and off campus students, and a 14:1 student-faculty ratio
- Transfer students have both on-campus and off-campus housing options, including a living community on campus just for transfer students (all majors).
<https://llp.vt.edu/llc/transfer.html>
- Virginia Tech is a diverse campus with students from over 40 states and 115 countries.
- Students can attend full-time or part-time.
- Classes are most typically offered Monday – Friday, 8am – 5pm
- Learn more about our university at <https://vt.edu/about/facts-about-virginia-tech.html>

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 Virginia Tech

WHAT CAN I DO WITH THIS DEGREE?

- Virginia Tech biomedical engineering students will be uniquely trained to bridge the gap between traditional medicine and the technology needed to address emerging and complex health care problems. Our program emphasizes technology transfer, engineering fundamentals, and hands-on learning opportunities. Students will have access to

undergraduate research alongside program faculty, internships and clinical rotations, and innovative entrepreneurial training.

- Explore possible careers, salaries, and job outlook at <https://www.TransferVirginia.org> and <https://eng.vt.edu/academics/undergraduate-students/explore-engineering.html>

PROGRAM SUCCESSES & HIGHLIGHTS

- 2023 Median Annual wage for beginning Biomedical Engineers was \$100,730 (Source: Occupational Outlook Handbook, <https://www.bls.gov/ooh/architecture-and-engineering/biomedical-engineers.htm>)
- The Bachelor of Science degree in Biomedical Engineering graduated its first class in May 2022, and will be evaluated for ABET accreditation in fall 2022.

WHAT ARE MY CHANCES FOR GETTING ACCEPTED?

Each year around 400-450 VCCS transfer students apply for admission to a program in the Virginia Tech College of Engineering. Between 60-70% are typically offered admission. The average GPA of transfer students enrolling is 3.5.

Learn more about applying at <https://vt.edu/admissions/transfer.html>

DO MORE WITH YOUR DEGREE!

Students may complete an accelerated Master's degree in one additional year of enrollment