

COURSE REQUIREMENTS

Complete at VCCS				Complete at Virginia Tech							
BACHELOR'S DEGREE REQUIREMENT		SATISFIED BY		BACHELOR'S DEGREE REQUIREMENT		1 st sem (fall)	2 nd sem (spring)	3 rd sem (fall or 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		BSE 2004	3						
ENGL 1105	3	ENG 111		BIOL 1105 or ISE 2014	3 or 2						
ENGL 1106	3	ENG 112		ESM 3024	3						
Pathways Concept 2	3	Any UCGS Art or Humanities		BSE 3154	3						
Pathways Concept 2	3	Any UCGS Art, Humanities, or Lit	This course must come from a different group than prior requirement.	CHEM elective	3						
Pathways Concept 3	3	Any UCGS History		BSE 3144	2						
Pathways Concept 3	3	Any UCGS Social/Behav Science	This course may not be a history course.	BSE 3324 or 3524	3	BSE Fundamental Elective sequence: Watershed Science & Environ. Health or Biotechnology, Food Engineering, and Health Professions					
MATH 1225	4	MTH 263		BIOL 1106	3						
MATH 1226	4	MTH 264		ISE 3034	3						
MATH 2204	4	MTH 265		BSE 3504	3						
MATH 2214	3	MTH 267		BIOL 2604	3						
PHYS 2305	4	PHY 241	Need CHM 111 and PHY 241+242	BSE 3334 or 3534	3	BSE Fundamental Elective sequence: Watershed Science & Environ. Health or Biotechnology, Food Engineering, and Health Professions					
PHYS 2306	4	PHY 242	Need CHM 111 and PHY 241+242	STAT 3704	3						
CHEM 1035+1045	4	CHM 111		BSE Electives	9	3 courses total – taken as needed to fill in schedule					
ENGE 1215	2	EGR 121		BSE 4125	BSE 4126	2 + 3	Year-long design project (must begin in fall, and end in spring)				
ENGE 1216	3	EGR 122		Technical Elective	3	taken as needed to fill in schedule					

MATH 2114	3	MTH 266		Engineering Topics Electives	9	3 courses total – taken as needed to fill in schedule
ESM 2104	3	EGR 240				
ESM 2304	3	EGR 246				
CHEM 1036	4	CHM 112				
BIOL 1105 or ISE 2014	4	BIO 101 or EGR 206				
CREDITS PRE-TRANSFER: 68-69				CREDITS POST-TRANSFER: 60-62 (degree total 128)		

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 Biological Systems 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.
- 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>
- **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://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>
- Students entering VT in the fall semester following this plan will have the next spring or fall semester open for a co-op. Students will need to take one of those semesters off due to

sequencing of our courses. If students enter VT in the spring following this plan, they will not have a co-op semester but will complete the requirements in 2.5 years.

IS THIS DEGREE RIGHT FOR ME?

- The Bachelor of Science degree in Biological Systems Engineering is accredited by [ABET](#).
- Students can choose between two Fundamental Electives sequences: Watershed Science & Environmental Health or Biotechnology, Food Engineering, & Health Professions
- The Department of Biological Systems Engineering (BSE) was established under the original name Agricultural Engineering in 1920 to provide support for the food and fiber industry.
- 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 (129) towards a ME 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?

- The BSE program is designed to graduate engineers who apply engineering principles to biological systems in fields/professions such as biotechnology, watershed science, environmental health, and food engineering.
- 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

- Virginia Tech's BSE program is ranked #10 in the US for Bachelor's degrees in Biological/Agricultural Engineering by US News World and Report
- The median starting salary of 22/23 BAE graduates was \$65,000 (with a median bonus of \$2,500)

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