Bachelors of Science in Industrial and Systems Engineering
Associate Transfer Degree Plan in Engineering

COURSE REQUIREMENTS

Complete at VCCS

BACHELOR'S DEGREE REQUIREMENT	Credits	SATISFIED BY (CC Course)	Notes
VT 1XXX	1-2	SDV 100 or 101	
ENGL 1105	3	ENG 111	
ENGL 1106	3	ENG 112	
Pathways Concept 2	3	Any UCGS Art or Humanities	
Pathways Concept 2	3	Any UCGS Art, Humanities, or Lit	This course must come from a different group than prior requirement.
Pathways Concept 3	3	Any UCGS History	
Pathways Concept 3	3	Any UCGS Social/Behav Science	
MATH 1225	4	MTH 263	
MATH 1226	4	MTH 264	
MATH 2204	4	MTH 265	
MATH 2214	3	MTH 267	
PHYS 2305	4	PHY 241	
PHYS 2306	4	PHY 242	
ENGE 1215	2	EGR 121	
ENGE 1216	3	EGR 122	
MATH 2114	3	MTH 266	
ESM 2104	3	EGR 240	

Complete at Virginia Tech

Semester key: 1st sem (fall), 2nd sem (spring), 3rd sem (fall or spring), 4th sem (fall), 5th sem (spring)

BACHELOR'S DEGREE REQUIREMENT (Course)	Credits	Semester	Notes
ISE 2004	1	1st sem (fall)	
ISE 2024	3	1st sem (fall)	
ISE 2034	3	1st sem (fall)	
ISE 2404	3	1st sem (fall)	
ISE 3614	3	1st sem (fall)	
ISE 2804	3	1st sem (fall)	
STAT 4706	3	2nd sem (spring)	
ISE 3034	3	2nd sem (spring)	
ISE 3214	3	2nd sem (spring)	
ISE 3414	3	2nd sem (spring)	
Free elective	3	2nd sem (spring)	
ISE 2214	1	2nd sem (spring)	
ISE 3424	3	3rd sem (fall or spring)	
ISE 3624	3	3rd sem (fall or spring)	
ISE 4204	3	3rd sem (fall or spring)	
ISE Technical Elective	6	3rd sem (fall or spring)	2 courses
ISE 4404	3	4th sem (fall)	

				ISE 4005	ISE 4006	2 + 2	Year-long design project (must begin in fall, and end in spring)
ISE 2014	2-3	EGR 206		ISE Technical Elective		3	
CS 1064	3	CSC 221		Technical Electives		6	2 courses
ESM 2304 or 2204	3	EGR 245 or 246		Free elective		3	
CHEM 1035/1045	4	CHM 111				Varies	Career Bridge Experience

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.

CREDITS PRE-TRANSFER: 61-63	CREDITS POST-TRANSFER: 63 (degree total 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 Industrial & 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.
- 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 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 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?

- The Bachelor of Science degree in ISE is accredited by ABET.

- The Department offers required and elective courses encompassing the breadth of the industrial engineering discipline: human factors engineering and ergonomics, manufacturing systems, operations research, and management systems.
- 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 ISE 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 mission of the ISE Undergraduate Program is to prepare industrial and systems engineering students to create value for organizations, the profession, and society. We achieve this mission by recruiting, retaining, and educating high quality and diverse students and by creating a rigorous and collegial environment enabling students to learn industrial engineering

methods and tools, built upon a foundation of mathematical, physical, and engineering sciences, and to apply them in any global organizational setting. Students can achieve academic and professional success through opportunities to participate in various educational experiences, to develop capabilities as future leaders, and to embark on a lifelong journey of professional development and learning.
- 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

- The ISE program is ranked #3 in the US among Best Undergraduate Engineering Programs by US News and World Report
- The median starting salary of 22/23 ISE graduates was $77,000 (with a median bonus of $7,000)

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