

# Virginia Tech Bachelor of Science in Aerospace & Ocean Engineering (Aerospace Major)

## 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 <sup>st</sup> sem (fall)	2 <sup>nd</sup> sem (spring)	3 <sup>rd</sup> sem (spring)	4 <sup>th</sup> sem (fall)	5 <sup>th</sup> sem (spring)
Course	Credits	CC Course	Notes	Course	Credits	Notes				
VT 1XXX	1-2	SDV 100 or 101		AOE 2054	3	(if EGR 271 not taken)				
Programming Elec (CS 1044 or 1064 or 1114)	3	CSC 210 or CSC 221 or CSC 222	one of these courses required	CS 1044 or CS 1064 or CS 1114	3	(if not taken at VCCS)				
ENGL 1105	3	ENG 111		AOE 2074	2					
ENGL 1106	3	ENG 112		AOE 2104	3					
Pathways Concept 2	3	Any UCGS Art or Humanities		AOE 2024	3					
Pathways Concept 2	3	Any UCGS Art, Humanities, or Lit	This course must come from a different group than prior requirement.	MATH 4564	3					
Pathways Concept 3	3	Any UCGS History		AOE 3014	3					
ECON 2005	3	ECO 202		AOE 3034	3					
MATH 1225	4	MTH 263		AOE 3124	3					
MATH 1226	4	MTH 264		AOE 3154	3					
MATH 2204	4	MTH 265		AOE 3114	3	Taught spring only				
MATH 2214	3	MTH 267		AOE 3134 or 3144	3	Taught spring only				
PHYS 2305	4	PHY 241		AOE 3164	3	Taught spring only				
PHYS 2306	4	PHY 242		AOE 3054	3					
CHEM 1035 + 1045	4	CHM 111		Track Technical Electives	9	3 courses, from one of 9 tracks (to be taken any term to fill schedule)				
ENGE 1215	2	EGR 121		AOE 4105	1	Taught fall only				

ENGE 1216	3	EGR 122		AOE 4065 or 4066	4165 or 4166	3 + 3	Year-long senior design (must begin in fall, and end in spring)
ESM 2104 (+ESM 2204 will sub for ESM 2114)	3	EGR 240		MATH elective		3	
ESM 2204 (+ESM 2104 will sub for ESM 2114)	3	EGR 246		Technical Elective		6	2 courses to be taken any term to fill in schedule
MATH 2114	3	MTH 266		AOE 4106		1	
ESM 2304	3	EGR 245		Free elective		0-3	If additional hours needed to reach 127 total
AOE 2054	4	EGR 271					
CREDITS PRE-TRANSFER: 70 - 71				CREDITS POST-TRANSFER: 67 - 70 (to reach degree total of 127 credits)			

## 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 Aerospace 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 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.

- **Transfer Initiatives Office:** <https://advising.vt.edu/transfer-student-advising.html>
- **Register Intent to Transfer:** By completion of 30 hours at [www.TransferVirginia.org](http://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>

### IMPORTANT LINKS & DATES:

### IS THIS DEGREE RIGHT FOR ME?

- The Bachelor of Science degree in Aerospace and Ocean Engineering is accredited by [ABET](#).
- Students can choose among nine degree tracks: Aero / hydrodynamics, Dynamics, control, and estimation, Energy and the environment, Foundational option, Naval engineering, Propulsion, Space engineering, Structures and materials.
- 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 tVirginia 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 (127) towards an AE 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's Kevin T. Crofton Department of Aerospace and Ocean Engineering offers an unusual approach to understanding and exploiting the similarities between two seemingly disparate fields. This perspective allows our researchers to forge new paths through

aerospace and ocean engineering, and launches our graduates into careers that deepen our understanding and advance our technology. Our most valuable asset, however, is our commitment and proven ability to teach students how to tackle complex systems.

- 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

- 61% of undergraduate AOE students expect full-time employment, most typically in the areas of Aerospace or Shipbuilding Industries, Federal Government Agencies (NASA, DOD, etc.), or Maritime Agencies
- The median starting salary of 22/23 AOE graduates was \$80,000 (with a median bonus of \$5,000)

#### 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