



Engineering
Technology
Accreditation
Commission

	VaughnCollege <small>of aeronautics and technology</small>
	Bachelor of Science in Electronic Engineering Technology Avionics Concentration
	COMPLIANCE WITH ETAC ABET POLICY

Department of Engineering and Technology Mission Statement

The mission of the department of engineering and technology is to provide career-oriented education, support application-oriented research, and offer service in the public interest. Consistent with this mission, the primary goals of the department of engineering and technology is to produce a versatile engineering technology graduate capable of growth within industry, prepared to pursue advanced education, and to contribute to the economic development of the country.

The engineering and technology department at Vaughn College implemented a set of in-class and out-of-class academic activities with the intent to prepare students for the growing demands of today’s technology as well as to prepare them for both workplace and graduate study. These activities intend to instill a mind-set in our students that changes in technology are constant and that lifelong learning is necessary to meet future professional challenges.

Program Description

Consistent with the mission, the BS Electronic engineering Technology - Avionics program is designed to provide career, research, and engineering technology application-oriented education to our students. The program provides a link between academia and industry; and provides students with the knowledge of analytical, design, computational and experimental methods. The courses in EET – Avionics concentration provide students with a strong foundation and proficiency in sophisticated aviation electronic systems found onboard commercial, corporate and private aircraft. The program emphasizes science and technology as they apply to today’s modern fleet of aircraft.

The BS Electronic Engineering Technology-Avionics concentration curriculum strives to provide students with an in-depth application of theory and physical sciences to advanced systems found on today’s modern industry and aircraft. This strong background in mathematics, basic sciences and electronics facilitate the students in understanding in the advanced electronics systems specific to aircraft. The avionics curriculum concentration encompasses a detailed study of the principles and operation of analog, digital electronics systems, communication systems, navigation systems, flight control systems and surveillance systems in general and specific to aircraft. The program instills a broad-based understanding of the fundamental technical subject areas associated with EET-Avionics so they are ready for immediate employment in industry or graduate study.

Program Educational Objectives

The BS electronic engineering technology - Avionics program educational objectives are developed to prepare students for the post-graduation activities. Consistent with the mission of department and input from our constituencies (Industrial Advisory Council (IAC), alumni, students, and employers), electronic engineering technology faculty members have drafted a set of program educational objectives (PEOs). These program educational objectives are intended to produce versatile graduates in engineering technology who:

1. Will be successful in their chosen avionics/electronics career path. Graduates of this program will be able to pursue positions that require avionics/electronics design, development, implementation, and manufacturing of avionics systems and processes.
2. Will be able to pursue FCC license, professional education, graduate study and/or continued education.
3. Will conduct themselves as responsible members of society through involvement in community and professional engagement.

Student Learning Outcomes

The BS Electronic engineering technology - Avionics program seek to provide an engaging educational experience for students. These form the basis for particular abilities that students should be able to demonstrate prior to graduation. These abilities coincide with ETAC ABET criterion 3 (1) through (5) requirements as presented below:

1. Graduates will demonstrate an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems used in electronic engineering technology program
2. Graduates will demonstrate an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate of an electronic/avionic system
3. Graduates will demonstrate an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature
4. Graduates will demonstrate an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes of an electronic/avionic system
5. Graduates will demonstrate an ability to function effectively as a member as well as a leader on technical teams.

Assessment Process and Plan

To quantitatively measure the students' attainment of the student outcomes, only the student outcomes assessment results included in the Faculty Course Assessment Report (FCAR) is used. The data from assessment results in the FCARs are compiled and graphed in the Electronic Engineering Technology – Avionics Assessment Report. The assessment is conducted on an annual basis during the fall or spring semester with assessment taking place in higher level engineering Technology and program's design courses including capstone degree project. No more than four, but usually two to three courses will be used to assess an outcome as a way to achieve "triangulation" of the result. In addition, other assessment tools such as Exit Survey, Alumni Survey, and Internship survey that program uses for continuous improvement. These

constituents feedback surveys are used to address the currency of program educational objectives and attainment of student outcomes.

Assessment Schedule and Frequency

ASSESSMENT TYPE	Year & Semester when Data Were Collected	FREQUENCY OF ASSESSMENT	DOCUMENTS LOCATION
Faculty Course Assessment Reports (FCARS)	Spring 2024, Spring 2023, and Fall 2022	Annually	Available during Site Visit
Program Assessment Report	Spring 2024, Spring 2023, and Fall 2022	Annually	Disseminating in VCJET Journal Annually and Available during Site Visit
Exit Surveys		Rolling Basis	
Alumni Survey		Rolling Basis	
PEO's Relevancy Surveys by Students and Alumni		Every 3 years	Available during Site Visit
PEO's Relevancy Surveys by IAC		Every 3 years	Available during Site Visit

The BS Electronic Engineering Technology – Avionics Program Enrollment and Graduation Data

Academic Year	Program Enrollment	Program Graduation Numbers
2023-2024	28	5
2022-2023	33	8
2021-2022	38	8
2020-2021	50	15

Why We're Nonprofit

As a nonprofit (not-for-profit) college, Vaughn is in the business of training skilled professionals to make a difference in the world – not gaining profit, revenue, or producing dividends for shareholders. In keeping with our commitment to your education, we invest our resources back into degree programs and into your student experience.

While many other colleges have raised tuition, **Vaughn has been able to keep costs low as a nonprofit college and has only moderately increased tuition when necessary.** Lower tuition means less student loan debt for students.

For Vaughn College, nonprofit is more than a status; it is a valuable opportunity to invest in the lives of students who will go out and impact the world.