

Vaughn College of Aeronautics and Technology

Designed for Impact—2020 to 2026

History

Charles S. “Casey” Jones, George A. Vaughn, Jr. and Lee D. Warrender were aviation visionaries. They wanted to create a school to train students in the design, building and servicing of aircraft and engines to support a burgeoning flight industry. They made this vision a reality in 1932 with the founding of the Casey Jones School of Aeronautics. Shortly after the opening of LaGuardia Airport, Mayor Fiorello La Guardia laid the cornerstone for the Academy of Aeronautics in New York City. Mayor LaGuardia invited his World War I friends to join him in Queens to support his new airport. After moving to New York City, the newly named Academy of Aeronautics educated and trained 20,000 men and women who supported the nation’s successful air effort during World War II.

As the needs of the industry grew so did the Academy. In the fall of 1964, the Academy of Aeronautics conferred associate’s in applied science degrees for the first time, and in 1969, the Academy was accredited by the Middle States Association of Colleges and Schools. In 1986, the Academy’s name was changed to the College of Aeronautics. In 1996, we completely revised our curriculum resulting in nine new academic programs, including for the first time, the bachelor of science degree and an associate degree in flight. On May 5, 1998, we completed a state-of-the-art 35,000-square-foot new classroom and administration addition. It included a 65-foot observation tower providing views of the runways at LaGuardia airport.

Our 2000-2001 strategic planning process was a seminal experience for the institution. The resulting strategic agenda brought clarity and direction to critical questions about the institution’s positioning and focus, and along with the plan’s update in 2004, spurred significant change in the institution. Effective September 1, 2004, the Board of Regents of the State of New York approved the changing of our name from the College of Aeronautics to Vaughn College of Aeronautics and Technology. We completed our first residence hall with a capacity of at least 220 beds in 2007. In 2012, we completed a comprehensive

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program evaluation, initiated a multi-million-dollar campus construction and renovation project, including the construction of our new library, and began work on our second strategic plan. We now offer associate's, bachelor's and master's degrees in engineering, technology, aviation, and management. We are the only college in New York to offer a mechatronics engineering program, a combination of several engineering fields including mechanical, electrical and computer engineering.

The institution has always served the latest immigrants to the United States and provided them and their families with that important first step on the economic ladder of prosperity. In fact, in 2017, Vaughn was recognized as having the highest upward mobility rate among 2,137 colleges in a study published in The New York Times. We were described as “an institution doing more to impact social mobility for those who start from less fortunate means,” and recognized as the top institution for moving students from the bottom 40 percent to the top 40 percent in income. We are also ranked among the best baccalaureate colleges by the US News & World Report and the most racially diverse in the North.

The successes, along with our historically high employment rate within one year of graduation led us to create the “Vaughn Guarantee” in the fall of 2018. This guarantee provides students who have met basic progress requirements in either the associate in occupational studies or bachelor of science degree repayment of 12 months of their federal loans if they are unable to find a position in their field within one year of graduation.

Since our founding, Vaughn has been keenly aware of our role in serving the needs of America’s first-generation college students and the expanding industries who seek out and employ our graduates. Our nascent spirit—constant innovation to meet constantly changing needs—has guided us historically. That spirit endures with this, our third strategic plan.¹

¹ Vaughn documents complemented by “en.wikipedia.org/wiki/Vaughn_College_of_Aeronautics_and_Technology”

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Institutional Vision, Mission and Values

Vaughn has changed over the 90 years since its founding, adding programs in the last decade that support industries beyond aeronautics, but the commitment to students is steadfast and is reflected in our vision and mission,

Vision: To change the world one student at a time with a transformative education that leads to a lifetime of opportunity.

Mission: To provide a dynamic learning environment built on our aeronautical heritage that inspires a diverse and committed community of students to achieve success as leaders in the industries we serve.

While our vision and mission are the bedrock upon which our institution is built. Our core values are the pillars that support all we do:

- **Demonstrate Integrity:** We pursue our mission following the highest standards of excellence, ethics and mutual trust, and expect everyone to be accountable for their decisions and actions.
- **Embrace Diversity:** By respecting diversity in all its dimensions, we foster a community that invites and is inclusive of everyone.
- **Practice Collaboration:** Our culture is driven by a commitment to shared governance, teamwork, communication and collaboration within the institution and in partnership with outside entities.
- **Achieve Impact:** We are dedicated to providing students an educational experience that will transform their lives and to creating a learning environment for trustees, faculty and staff that nurtures a passion for student success.
- **Choose Courage:** Leveraging our pioneering aeronautical heritage, we choose to be bold in our decision-making, challenge the status quo, and generate opportunity for future generations.

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The Strategic Planning Process

We began our third strategic planning process in May of 2018 with the desire to develop a shared new vision and strategic agenda for the next phase of the institution's future. From May to September, through individual and small group interviews, we collected 433 strategic issues to consider in the process of designing our future. During a full-day retreat in late September, a cross-section of internal and external institutional stakeholders worked together to craft from the strategic issues six institutional questions that needed to be answered. We then developed these questions into charges and formed work groups who developed answers to those questions from November 2018 through April 2019. The work groups studying finance and development, infrastructure: technology and facilities, academic programs, customer service, marketing and enrollment, and governance and administration were composed of a broadly representative cluster of about 50 members of the College community.

Three times during this period the work groups met with the Vaughn community in open campus meetings to test and revise their thinking on these institutional questions. The work groups also met with the board of trustees in February and March 2019 with the same goals in mind. Further, these work groups reported regularly to a steering committee broadly representative of all College stakeholders, including the chairs of each work group. During the remainder of the spring and summer, with the president's leadership, the steering committee developed this strategic agenda from the work group reports and utilized the College's financial planning model to test our vision.

The Environment

Vaughn College has many strengths to build upon as we determine and shape our desired future. We offer great value to our students, a high post-graduation employment rate and a ranking by the New York Times as the number one college in upward mobility in the country. We offer attractive, high-demand programs that maintain a unique emphasis on specific technical areas and fields in line with strong

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international career demand. Our student-centered focus, caring environment, and low student-to-faculty ratio provides a unique and individualized experience for a diverse student population. Our modern campus is located in a desirable geographic location for international students. We have a strong endowment in comparison to peers and ability to attract grant funding. Our shared governance model and knowledgeable board allows for open dialogue and innovative thinking. Our vision, mission and values statements provide a foundation to all members of the College community and include a commitment to diversity, collaboration and impact.

While we have many strong points, Vaughn is not without areas that must be improved as we attempt to move forward successfully as an institution. Our location and the high cost of real estate, matched with considerable debt, can also be a hindrance, leading to space constraints and capacity issues. Not all students are prepared for college, and some students require specialized services, which has required us to redirect resources and accept a lower retention rate than we would prefer. Our increasing tuition rate in an atmosphere of student resistance to borrowing puts pressure on our matriculation and retention rates, and thus, our finances. Our large commuter population and lack of traditional space or amenities for student activities leads to low engagement and school spirit among students. We also need to strengthen our alumni connections to the College. With only one master-degree offering and a focus on degrees in male-dominated industries, we need to look to promising new markets. Technology that could increase productivity, processes, and our electronic means of communication must be fully utilized. The practice-oriented, technical education that we offer is associated with high expenses to stay current with advances in the industries we serve. Underutilized course scheduling times and an imperfect mix of full-time faculty and industry-specific adjuncts must be properly adjusted. There is a strong desire across the campus for a more communicative, collaborative, and transparent decision-making structure that uses the right technology tools to further support this close-knit and productive community.

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Fortunately, the external environment presents us with opportunities. The societal demand for science, technology, engineering and math (STEM) career opportunities, especially for minorities and women, provides potential for a larger market. There is local demand for post-baccalaureate degrees in engineering and international demand for aviation training, providing prospects for international expansion and new sources of revenue. New programs and technology for customer service, classroom learning, and professional development offer methods for engaging students, faculty, staff, and alumni. In particular, developments in instructional software and virtual reality lab software offer opportunities to improve our instructional delivery systems. There are also significant opportunities to connect with our local community, such as local secondary schools and the National Academy Foundation, and to partner with corporate entities. Likewise, Vaughn's alumni base continues to grow and mature and has great potential for both establishing industry connections and recruitment.

Of course, we must always be aware of and prepared to respond to external threats. With the strong demand in the student population comes new and growing competition from institutions offering competing programs and online offerings. Free public college tuition in New York state adds significantly to that competition. Financial support in the form of grants and loans from governmental bodies has not kept pace with the increasing expenses of a college degree. This is especially challenging in a time when more and more families are finding it difficult to pay for tuition and public competitors are offering free tuition. Meanwhile, while students are expecting more, growing numbers of high school graduates are coming to college under-prepared for the rigors of college course-work. Federal and state regulations are constantly changing, which affects compliance, accrediting processes, and career prospects for our graduates. There is also a growing awareness that, particularly in technical fields, that the need to remain current requires ongoing education and training.

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Our Strategic Vision

We have worked over the last decade and a half to transform Vaughn College from an aeronautics school into a multi-faceted residential institution. As a result of our strategic planning effort in 2018/19, we have confirmed that we must maintain our institutional vision to change the world one student at a time with a transformative education that leads to a lifetime of opportunity and continue our institutional heritage of constant evolution to meet the constantly changing needs of the students and industries we serve. In the new decade, we shall be regarded as *an educational institution at the leading edge of innovative, transformative, lifelong-learning*. To meet this goal, we will:

1. *Establish life-long learning as our fundamental purpose and ground it with a comprehensive digital transformation that drives everything we do.*
2. *Constantly evolve the mix of certificate, degree, competency-based and micro-credential programs based upon market needs and utilize cutting edge on-campus, off-site, in-class, hybrid and distance education delivery systems.*
3. *Maximize our enrollment capacity and create space for expanded learning and engagement by optimizing space utilization, the mix of onsite and virtual programming and the careful consideration of the purchase or lease of land and buildings and utilizing partner relationships.*
4. *Deliver exemplary services to all stakeholders, primarily students, and superior campus communication services utilizing innovative and integrated technology systems to support all of those services.*
5. *Provide financial stability through expert marketing and enrollment services, pricing and discounting plans and rigorous financial and human resource management and development operations, all driven by predictive analytics and sound data analysis.*

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Initiative One: *We will establish life-long learning as our fundamental purpose and ground it with a comprehensive digital transformation that drives everything we do.*

We will develop the *Vaughn Life-Long Relationship Strategy* providing for the academic, personal and professional development of our prospects, applicants, students, parents, alumni, administrators, faculty, and our other learners.

- We will create a K-12 pipeline to Vaughn College, expanding our relationships well before students begin to think about College and developing their interest in STEM careers. This includes a significant focus on girls and young women who this nation needs in order to grow our capabilities in STEM.
- We will increase enrolled student persistence and graduation rates with innovative programming, including electronic delivery systems complemented by faculty mentoring, and predictive analytics that we will utilize to mitigate learning barriers before they can have a negative impact on student experiences.
- We will continue academic, personal and professional services after students graduate with a year-round and life-long distance learning and hybrid program offering stackable certificates, micro-credentialing and continuing education to support their ongoing development as alumni. We will utilize similar programs to provide continuing professional development for our faculty and staff.

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The goal is to build a lifelong strategy to futureproof all of our learners beginning in middle school and continuing throughout post-graduate, faculty and staff careers. We want all of our learners, and especially our alumni, to think of us first when they need upskilling or reskilling for their next professional step.

Simultaneously, we will develop and define the *Vaughn Experience* through the use of innovative state-of-the-art technology systems that support exceptional experiences, chief among them high-impact educational practices and services expanding opportunities for success and investing our resources in activities and facilities that encourage involvement by each learner. To support the Vaughn Experience, we will create a customer service technological platform that captures institution-wide feedback and provides immediate results, supporting a database that we will utilize for continuous improvement.

We will develop a communication plan for our *Life-Long Relationship Strategy* and the *Vaughn Experience* and focus on a significant expansion of our local, regional, national and international partnerships. We will provide our educational institution and industry partners with educational experiences and simultaneously develop internships and professional opportunities for our students and alumni.

Initiative Two: We will constantly evolve the mix of certificate, degree, competency-based and micro-credential programs based upon market needs and utilize cutting edge on-campus, off-site, in-class, hybrid and distance education delivery systems.

We will develop online and hybrid master's level programs such as the MBA in aviation management and an MBA in engineering management, as well as graduate-level certificates in cybersecurity, project management, data analytics, artificial intelligence, unmanned aerial systems, animation and digital technology and supply chain management.

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We will develop the capabilities to introduce more online courses, some of which will follow the competency-based education model utilizing our new Learning Management delivery system (LMS). This will require faculty training, new assessment solutions and information technology support to provide the optimum learning experience.

We will also formulate a new accelerated learning program to provide developmental education for underprepared new students in a format that allows for co-registration with college-level coursework and identify the services required to better serve Veterans and international students. We will continually increase the use of data analytics to improve retention and graduation rates and strengthen our data-driven decision-making process. As part of our digital transformation, we will use tools such as artificial intelligence in the form of “chat bots” to aid us in delivering outstanding service to students, alumni, faculty and staff.

We will immediately create an in-house research group to investigate best practices utilizing technology for teaching and learning. This group will first target for improvement those courses and programs already offered via our LMS and investigate additional courses that we can provide in hybrid form, and then, completely in online format, providing a well-developed pedagogy and new way of thinking about learning support systems, such as laboratory activities.

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Initiative Three: *We will maximize our enrollment capacity and create space for expanded learning and engagement by optimizing space utilization, the mix of onsite and virtual programming and the careful consideration of the purchase or lease of land and buildings and utilizing partner relationships.*

We will optimize our space by using advanced technological and common-sense practical solutions:

- Utilizing distance education delivery options (described in Initiative Two), progressively supplementing traditional instruction in more of our courses and programs and maximizing the use of our labs and classroom spaces
- Developing a laptop procurement plan to for students, faculty and staff
- Purchasing and using course and event scheduling software
- Moving to a digital platform for document creation, processing and storage wherever possible
- Making technology user-friendly and expanding online registration, billing and financial aid applications so that students may perform these tasks at their convenience
- Scheduling courses seven days a week and at times that fit the lives of the students we serve
- Utilizing the new cafeteria space to enhance student engagement opportunities through hosting programs and events in an area where students are expected to congregate
- Renovating existing cafeteria space (that is moving to a new location) to its highest and best use
- Relocating non-student support services to an off-campus location
- Exploring adding two floors to the residence hall building and/or offering appealing non-traditional housing.

We will also evaluate shared space with other academic and affiliated institutions, including flight training facilities, to better meet the needs of students; cultivate broader relationships with current supporters, including Delta Air Lines, Port Authority, La Guardia Gateway Partners, Jet Blue, Thales, etc.; expand our relationships with airlines for pilot and technician training; and co-venture with other national and international academic institutions.

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Finally, we will utilize structured processes to make large technological purchases; develop procedures for better technology utilization and review of equipment obsolescence, removal or replacement; create a Strategic Facilities Management Plan for utilizing existing and acquiring new space that balances cost and operational flexibility.

Initiative Four: We will deliver exemplary services to all stakeholders, primarily students, and superior campus communication services utilizing innovative and integrated technology systems to support all of those services.

We will leverage analytics, technology, and process innovations to improve business practices, increase operational effectiveness and support continuous quality improvement. We will improve student and faculty experiences by creating a knowledge management platform enabling their effective communication, and we will also provide seamless and user-friendly experiences for students and parents, optimizing access to accurate information. This platform will enable improved practices and operational effectiveness providing accessibility for Vaughn's enterprise-wide applications, policies and processes. By creating a shared understanding of our vision, data and planning efforts we can serve students and each other better while also strengthening our institutional governance.

We will enhance internal communication with a multi-modal plan including digital methods to disseminate information, decisions, directions and expectations. We will also create a digital warehouse of institution-wide policies, procedures, protocols, governance systems, organizational charts, office responsibilities, faculty and staff personnel handbooks, etc.—all catalogued and accessible via the Intranet.

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We will strengthen our relationship with our diverse student population by providing early and meaningful connections to their educational experience. The goal will be to ensure student success by connecting them to supportive services and integrating all Vaughn data to develop a predictive analytics model of persistence and graduation. At the same time, we will also develop *Vaughn Spirit* by engaging and creating stronger pathways of engagement for sophomore, junior and senior students and gathering student and parent feedback so we better understand their expectations and satisfaction. We will actively utilize our customer relationship management (CRM) system to enhance communication with all students so we may to understand what their shared experience of Vaughn is and the ways it can be improved.

Initiative Five: We will provide financial stability through expert marketing and enrollment services, pricing and discounting plans and rigorous financial and human resource management and development operations, all driven by predictive analytics and sound data analysis.

Marketing and enrollment services will work to further develop our brand and achieve name recognition with our target audiences, promote alumni engagement in all aspects of our institution, market all programs aggressively and constantly review pricing and discounting practices to ensure optimum enrollment and persistence. We will also seek out partnerships with local, regional, national and international corporate and educational entities for recruitment and dual enrollment programs and use technological resources to increase retention. Utilizing state of the art admissions practices and procedures from the very first contact with every prospect, we will expand our use of technological tools to assist us in devoting resources to those most likely to matriculate. We will establish a committee comprised of internal representatives and alumni that can strengthen student recruitment efforts through increased site visits, visibility and relationships with secondary educational institutions and community organizations in the tri-state area. Finally, we will develop the next iteration of our strategic enrollment

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plan that incorporates our best knowledge and analytics to create a five-year map of our new and continuing student enrollment targets.

Our dedication will not waiver from developing graduates who are ready to excel in their chosen professional field. In all that we do, we will focus on those opportunities that provide the highest quality educational experience while also being mindful of the increases to tuition and fees for students. We will explore making textbooks affordable, income-sharing agreements and other options, like the “Vaughn Guarantee” that provides great lifetime value to our students.

We will establish institutional priorities and resource those priorities accordingly to ensure:

- Appropriate staffing and compensation;
- Continued standardization of policies and procedures;
- Development of college-wide communication plans;
- Consideration of performance-based incentives and/or opportunities for recognition of high-performing employees; and
- Examination of our utilization of adjuncts.

We will look to faculty and staff to drive funding initiatives where they have industry connections and to trustees where they have connections with donor prospects. We will also pursue grants from the Department of Education, National Science Foundation and the Department of Transportation, and other organizations, encourage lifelong alumni support through expanded career services and continuing education, chase potential private funding grants and scholarships and consider a comprehensive campaign in conjunction with our 90th anniversary in 2022.

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In all of these areas, we will expand our use of predictive analytics to develop initiatives and assessment to review our performance.

The institution's financial stability is key to having the resources to invest in the future of higher education. Those resources mean that we can reinvest in technology, programs, and the faculty and staff who create this unique educational experience as well as to maintain our commitment to providing an affordable education.

The culture of Vaughn must continue to be *innovation*. Having the courage and resources to try out ideas that have the power to transform the lives of our students, but that may fail, is imperative.

Finally, guided by our strategic goal to be regarded as *an educational institution at the leading edge of innovative, transformative, lifelong-learning*, we will develop, support and monitor a comprehensive operational plan. That plan will describe each strategic initiative included above, its related goals and tasks and the associated responsibilities, time-lines, capital and operating budgets and ongoing assessments for success. It will ensure our strategic initiatives are implemented, monitored and adjusted when necessary. The president will regularly update the Vaughn community on the progress of the implementation and seek the input of the board, faculty, staff and students as to their shared experience and how the plan may need to change during the next five years.