Vaughn

COLLEGE MAGAZINE

WINTER 2020

CELEBRATING A CENTURY OF WOMEN

TABLE OF CONTENTS

VAUGHN MAGAZINE

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VAUGHN IN BRIEF

CELEBRATING WOMEN WHO MADE HISTORY

FOSTERING WOMEN WHO WILL CREATE THE FUTURE

ON THE 100TH ANNIVERSARY OF WOMEN'S RIGHT TO VOTE, INSPIRED AND INSPIRING ALUMNI, FACULTY AND TRUSTEES TALK ABOUT VAUGHN AND THE PRESENT AND FUTURE PROGRESS OF WOMEN IN STEM AND AVIATION

HARRIET QUIMBY
1875 TO 1912

Awarded her pilot's certificate by the Aero Club of America in 1911, Quimby was the first woman to gain a pilot's license in the US. She joined an air exhibition and debuted before a crowd of 20,000 spectators, earning an eye-popping $1,500. In 1912 she made the flight from Dover, England to Calais, France in 59 minutes, becoming the first woman to pilot an aircraft across the English Channel. She died later that year in an exhibition flight and was buried at Woodlawn Cemetery, the Bronx.

ON AUGUST 18, 1920, THE 19TH AMENDMENT TO THE CONSTITUTION WAS RATIFIED, FINALLY GRANTING WOMEN THE RIGHT TO VOTE AFTER A DECADES-LONG STRUGGLE. Though aviation was still in its dawning days, women were already involved as both pilots and engineers. Pioneering pilots made headlines, from **Harriet Quimby**, who became the USA's first licensed female pilot in 1911, to **Ruth Law Oliver**, who purchased her first aircraft and earned her license in 1912 (despite Orville Wright's refusal to teach her how to fly). **Bessie Coleman**, the first African-American woman to become a pilot, overcame the barriers of race and gender by earning her pilot's license in France in 1921 and returning to the United States to teach other Black women to fly and gain fame among the growing ranks of barnstormer air circus performers.

Emma Lillian Todd was a self-taught inventor who started designing airplanes in 1906 and whose first plane flew in 1910. And in 1919, **Edith Clarke** became the first woman to earn a master's degree in electrical engineering, after she left her job at AT&T to enroll at the Massachusetts Institute of Technology. It wasn't until 1929 that **Elizabeth "Elsie" MacGill** became the first woman to earn a master's degree in aeronautical engineering. This was also the year that all 117 women who were licensed pilots at the time were invited to Curtiss Field in Valley Stream, Long Island, to form an organization for the support and advancement of women in aviation. Ninety-nine of the women attended, and that organization, with Amelia Earhart as its first president, became the **Ninety-Nines** (shown above). Still going strong, the Ninety-Nines membership today includes Vaughn graduates and faculty member Deb Henneberry, a licensed pilot and assistant professor of aviation.

At Vaughn College, this 100th anniversary milestone provides a great opportunity to acknowledge both the progress of women in engineering and aviation and the work that remains ahead. As Alice Paul, one of the leaders of the suffrage movement, presciently commented in 1920 after the 19th Amendment was ratified, "the fight for full equality... has just begun."

Indeed, despite some improvement, women are still underrepresented, making up only 28% of the STEM workforce (according to a recent report from the American Association of University Women) even though they represent more than half of all workers with postsecondary degrees. And the gender gaps are especially great in some of the fastest-growing, highest-paid jobs of the future. With projections of 6.6 million STEM jobs to fill over the next 10 years, according to the US Chamber of Commerce Foundation's Center for Women in Business, attracting and educating women in STEM will be essential for building a strong economy and bright future for American industries.

That is where Vaughn College has played and will continue to play such a significant and powerful role. Just as Vaughn's degree programs have evolved and expanded beyond its deep roots in the aviation industry, the College is also determined to support and advance women's success across the full spectrum of engineering, technology, management and aviation. Vaughn has a core value of embracing diversity, and its pursuit of gender diversity is part of a broader commitment to transformational education that puts every student on the path to individual success.

Spearheading and encouraging these efforts, and embodying the power of women to inspire women, is **Dr. Sharon B. DeVivo**, Vaughn's chief executive officer and seventh president and the first woman to hold that position. "We are at a pivotal moment to reach out and develop the next generation of leadership in aerospace and aviation," Dr. DeVivo stated in the recent announcement of her appointment as chair of the Department of Transportation's Youth Access to American Jobs in Aviation Taskforce. "The same is true across engineering, management and technology.

Maia Rivers '18

CREATING THE FUTURE

So where are we now? All interviewees agreed that women still face extra challenges, and at the same time, most see clear signs of progress in the workplace. Read what they have to say on the following pages...

CREATING THE FUTURE

"By the time I was a senior at Vaughn, there were more women coming in than when I arrived as a freshmen. And here at Volvo, they're hiring and definitely trying to bring in more women!" – NIKI TAHERI '19

While Vaughn has made inroads in recruiting women, approximately 12% of the student population is female. The entire Vaughn community is focused on increasing that number in middle and high school by encouraging and attracting young women to attend the College, pursue the fantastic internship and employment opportunities we connect students to, and creating futureproof careers that are possible with a Vaughn degree."

In 2020, as we celebrate the change-makers and ceiling-breakers of the past, we also celebrate the women of the present Vaughn community who are helping to shape the future of women in STEM-based industries. We talked to an amazing group of alumni, faculty and trustees on a range of topics: The power of student-run organizations and networking, the women who inspired them, the impact of paying it forward, the importance of early exposure to STEM, challenges and progress for women, the supports Vaughn has in place and what more Vaughn can do to close the gender gap in engineering and aviation and fully tap the talent and brainpower of women across the entire technology and management workforce.

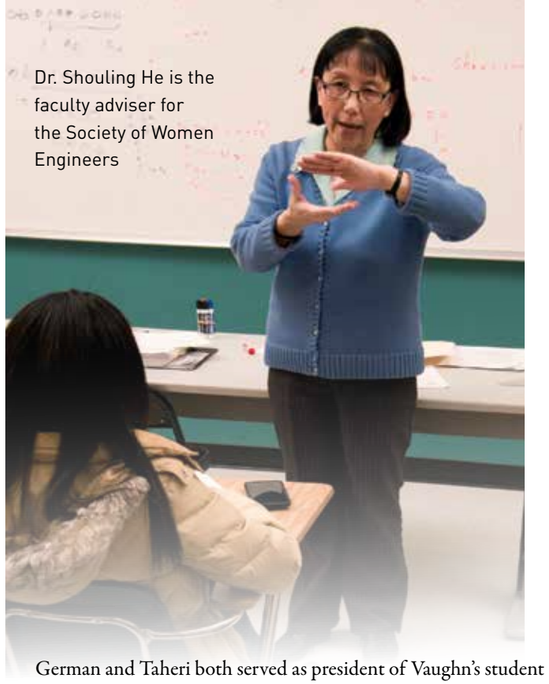
Ruth Law Oliver
1887 to 1970

Law fell in love with flying and bought her first plane from Orville Wright. A daring pioneer, Law was the first woman to fly at night, set three records on a flight from New York to Chicago and was the first woman authorized to wear a military uniform. She formed Ruth Law's Flying Circus after World War I and amazed spectators at state fairs, racing against cars, flying through fireworks and breaking speed and altitude records.

THE POWER OF CLUBS AND NETWORKING

Recent graduates **Niki Taheri '19, Emily German '18, Grace Davis '19 and Maia Rivers '18** have spread out across the country in pursuit of their careers: Taheri to Volvo Trucks Technology in Greensboro, NC; German to Daimler Trucks North America in Portland, OR; Davis to Northrup Grumman Corporation in Rolling Meadows, IL; and Rivers to Oshkosh Corporation in Oshkosh, WI. And all agree that their participation in women-focused student clubs was a huge factor in their success both during and after their years at Vaughn.

"The clubs make such a big difference—they get you through!" said Davis. "At the community college I attended before Vaughn, there were no clubs and I was just going through the motions. But at Vaughn, I became part of a community, with a lot of women empowering each other, and with girls in the classes ahead helping me and tutoring me."



Dr. Shouling He is the faculty adviser for the Society of Women Engineers

German and Taheri both served as president of Vaughn's student chapter of the Society of Women Engineers (SWE). German described how the club grew during her years at the institution: "With far fewer women students at Vaughn, we tended to gravitate to each other. We built our support network with SWE and Vaughn supported us, helping us with funding to attend SWE conferences, to get papers submitted and presented, and get our names out there for internships and job opportunities. There was word of mouth, and from just four to five women members in my freshman year, it grew to 15 women in engineering programs by the time I graduated." The alumni spoke of the support, motivation and inspiration of Dr. Shouling He, the club's faculty adviser. Since becoming adviser, Dr. He has aimed to involve more women and girls in engineering by helping the club's students develop engineering projects and outreach workshops. She co-authored with the students a well-received educational research paper, which was presented at Institute for Electrical and Electronics Engineers (IEEE) and American Society for Engineering Education (ASEE) conferences. Vaughn's SWE students have held workshops at the SWE annual conferences four years in a row. Dr. He noted with satisfaction: "Most active members of SWE have gotten job offers—even multiple offers—from companies like Daimler, John Deere, Toyota, Cummins, Lockheed Martin and Northrop Grumman. And, our endeavors have been praised by the SWE and IEEE societies." Dr. He also works closely with the members of Vaughn's Robotics Club.

Clearly, the clubs play an integral role for Vaughn women, both to survive the challenges of their education and to thrive in STEM industries. Vaughn's Aviation Department Assistant Professor Henneberry pointed out, "Through the clubs, newer students see

Edith Clarke
1883 to 1959

Clarke studied mathematics and history at Vassar College (1908), and later became the first woman to be professionally employed as an electrical engineer in the United States and the nation's first female professor of electrical engineering. She also worked on the design and building of hydroelectric dams, including Hoover Dam, and wrote an influential textbook. "There is no demand for woman engineers... but there is always a demand for anyone who can do a good piece of work."

Women in Aviation International (WAI) is an American nonprofit organization, which provides networking, education, mentoring, and scholarship opportunities for women and men in careers in the aviation and aerospace industries.

WAI has long played a significant part in the life of Vaughn College and many scholarships have been awarded over the years to Vaughn women. Recently, a number of WAI members were selected to serve on the FAA Youth Access to American Jobs in Aviation Task Force (YIATF). Vaughn President, **Dr. Sharon DeVivo,** was chosen as the YIATF chair.

Bernice "Bee" Falk Haydu

She Got Her Wings with the WASPs and Her Honorary Doctorate from Vaughn

Bernice "Bee" Falk Haydu was born in 1920 in Montclair, New Jersey, and after graduating from high school, enrolled in aviation classes on weekends while working as a secretary. She attended Women Airforce Service Pilots (WASPs) training in Sweetwater, Texas, and completed her training in March 1944. She was among the first women to fly military planes for the Army Air Force. She married a fellow pilot and raised three children. Her dedication to WASP placed her front and center as president of the organization from 1975 to 1978, where she led the fight in Congress to recognize WASP veterans.

Deb Henneberry, assistant professor of aviation, met the pioneering aviator through the Ninety-Nines. As they got to know each other, Henneberry discovered that despite all of Falk Haydu's accomplishments, she regretted never having gotten her bachelor's degree. In 2015, that regret was remedied when Falk Haydu was invited to Vaughn College to speak at Commencement and to receive her honorary degree. Joined by friends and family, this remarkable woman said, "I am elated to be here...

I am finally receiving my college degree and that means so much to me." Falk Haydu turned 100 years old on December 15, 2020.

the successful seniors and they can say, 'here's someone who was in your shoes a few years ago and look what she's accomplished. I can, too!" Henneberry, adviser to Vaughn's Women in Aviation International (WAI) student chapter, is herself a member of the Ninety-Nines, the women pilots' club founded in 1929, offering networking, mentoring and flight scholarship opportunities for both recreational and professional female pilots. "It's so important to have a network to support you, and it's a great way to get to know people with the same interests," said Henneberry. "The Ninety-Nines are a small group and I've met some extraordinary people, such as Bee Falk Haydu (at left), one of the first women to fly military airplanes for the Army Air Force, who also received an honorary doctorate from Vaughn for her role as a Woman Air Service Pilot during World War II."

WOMEN INSPIRED BY WOMEN: A BIG ROLE FOR ROLE MODELS

Many women find their inspiration close to home, like Emily German, who said: "My mom inspired me. She was the first in her family to get a college education, and not only that, she went back and got her master's. She was a great role model because here's a woman, working with two kids, and then going back to school to get 75 credits for her master's degree. This has always pushed me to accomplish more and do better."

Two of Vaughn College's trustees had the good fortune to encounter pioneering giants in aviation and engineering. "I would never have become general manager of LaGuardia Airport if it weren't for my mentor, Sue Baer," said **Lysa Scully Leiponis,** speaking of the legendary Port Authority leader who was the first and only person to run all three airports. Scully Leiponis recalls: "I was going to leave aviation for another opportunity and she came to me and said, 'I'm not going to let you leave aviation! You are going to run an airport someday.' She created a job to give me exposure to the operations side of an airport, and within three weeks of

Bessie Coleman
1892 to 1926

This barrier-breaking civil aviator was the first African-American woman and also Native-American to hold a pilot's license. Unable to get flight training to pursue her passion to fly, Coleman raised money to go to France for flight school and earned her license in 1921. Back in the US, she became a high-profile "barnstormer" in notoriously dangerous air shows. She died in a plane crash while testing a new aircraft. Despite her untimely demise, she inspired many early pilots.

Susan M. Baer

Aviation and Transportation Pioneer
Longtime Friend of Vaughn College
1950 TO 2015

Susan Baer spent most of her professional career with the Port Authority of New York and New Jersey, and shattered barriers every step of the way. She was the first person to run all three major airports in the New York metro area and the first woman to be named its aviation director; she was also the first woman to run the Lincoln Tunnel. She was on duty in Newark on September 11, 2001, viewed the terrorist attacks from the administration building and halted all departures from Newark 14 minutes before the Federal Aviation Administration shut down airports nationally. Baer was an integral part of the Vaughn community, serving as a trustee for 23 years and as vice chair for 13. She was a key adviser on the development of Vaughn's aviation management programs, a frequent speaker on campus and a tireless champion for women in aviation. She told USA Today, "What I've tried to do is give other women opportunities, and that's something all women should be doing. It was hard for us to get here, but we should make it easier for the people coming behind us." Sue Baer's loss is still felt at Vaughn and by all those who knew her.

taking the job, I knew I would never leave. Sue was such a trailblazer and she wanted you to be your best self. " **Susan M. Baer** was a trustee of Vaughn College, serving as vice chair for 13 years until her passing in 2016. Baer provided critical input on the development of Vaughn's airport management curriculum and supported students with access to her vast network of contacts in aviation and management.

Trustee Mary Ward-Callan found a source of inspiration in **Grace Hopper** (see page 10), a US Navy rear admiral who was a pioneer in computer programming and is credited with helping to devise UNIVAC I, the first commercial electronic computer. Hopper was an alumna of Vassar College, where Ward-Callan was a math major. "As a student ambassador, I was particularly lucky to meet Grace Hopper," said Ward-Callan. "She was over 70 when I met her, and I was so impressed by her clarity of vision, enthusiasm, energy and her ability to provide a visual image of concepts that she became my role model."

For pilot and assistant professor of aviation Deb Henneberry, one of aviation's earliest pioneers, **Harriet Quimby** (page 2) has long been a source of inspiration and fascination. "She was the first female to fly solo over the English Channel! I really admire her," said Henneberry. "She raced cars, was so courageous and had a ton of curiosity. I related to her and loved learning about her life."

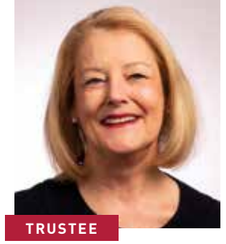
WOMEN WITH IMPACT PAYING IT FORWARD

The women we spoke to described their motivation to make things better for the next generation of women who have chosen to pursue their passion in industries that are still dominated by men. Those who have attained senior leadership positions have all experienced the challenges and obstacles confronting women, from gender discrimination in the workplace to the difficulties of balancing the

CREATING THE FUTURE

"I see the change on the international side. For a long time, IAWA struggled to grow internationally. That's now changed and women are not afraid to join IAWA and other organizations. The same is true in Asia. This is positive!"

– KATHERINE POSNER



TRUSTEE

demands of work and family. Each found ways to create support networks to help them and other women succeed. Vaughn trustee **Katherine Posner** is a founding member, past president and honorary board member of the International Aviation Women's Association (IAWA). She recalls, "In

Elizabeth MacGill
1905 to 1980

The daughter of a suffragette in Vancouver, British Columbia, "Elsie" MacGill was the world's first woman to earn an aeronautical engineering degree and the first in Canada to receive a bachelor's degree in electrical engineering. She worked as an aeronautical engineer in World War II and designed and tested a new training aircraft after becoming the first woman to be chief aeronautical engineer at Canadian Car and Foundry.

my early days, back in the late '70s and '80s, there were just a handful of women in airlines, insurance, law firms and businesses related to aviation. A group of us were meeting socially, and we thought, 'Let's put something together where we can talk about the opportunities, network and help each other out.' If I needed information, I'd have someone to call." IAWA had its first meeting in 1988, and the founding members had their first conference a year later. Today the organization has thousands of members and its annual conferences are prestigious industry forums. "I'm proud that we put our money where our mouth is, and created scholarships and conferences that have really benefited women and continue to do so," said Posner. "I got Vaughn on IAWA's scholarship list, and now Dr. Sharon DeVivo is on our advisory board."

In her senior leadership role at the Institute of Electrical and Electronics Engineers (IEEE), trustee **Mary Ward-Callan** strives to be a role model for women in engineering. "As a woman engineer, I have learned many lessons, some the hard way," she said. "I strive to share my successes and failures and to create a better environment for women to develop into successful engineers and computer scientists." Being an executive at the IEEE is a great vantage point for supporting women, she added: "I have the opportunity to advocate for a diverse engineering workforce, and I try hard to ensure that women are present in all of our activities to present role models for young women. I also have the opportunity to support women in volunteer positions with IEEE, roles that enable women to hone leadership and communication skills, gain mentoring and develop lifelong relationships." The IEEE also has a Women in Engineering group that sponsors the Women in Leadership Conference, a networking and educational event that brings together women from all over the world.

TRUSTEE

CREATING THE FUTURE

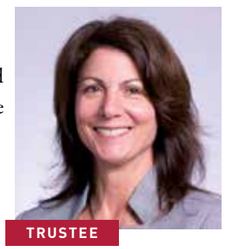
'Things are changing. My team at Daimler Trucks North America is 50% women and my manager is a woman. It's going in the right direction, where we want it to be." – EMILY GERMAN '18

IAWA SCHOLARSHIP RECIPIENT 2020/2021

Lylia Atik '24
Aeronautical Sciences

"I have faced many obstacles throughout high school one of which included balancing my maintenance classes and my academic classes, sports and community service. I have also been underestimated by my peers for being a female in a traditionally male career path. But I never allowed that to stop me and my ambitious goals."

"It's all about giving back to the women coming after us—we're only here for the moment," said trustee **Lysa Scully Leiponis**, who until recently was general manager of LaGuardia Airport. When Scully Leiponis took the airport's top job back in 2013, she was determined to help other talented women reach the top leadership at the Port Authority. In 2015, she began hosting an annual event recognizing Women's History Month, but despite its success, she felt that the once-a-year event left a lot more to be done for women. In 2018, she met with two younger female employees whom she was mentoring to discuss starting a female empowerment group for LaGuardia Airport, and made that goal a part of their development plan. That was how Women Empowering Other Women (WOW) was born. Recalls Scully Leiponis: "At the first meeting one of the attendees was so overcome by finally having a support group after working in the airport for 15 years. She had always wanted this, but was afraid to ask." Though Scully Leiponis is no longer at LaGuardia, WOW has grown and flourished, attracting members from operations, engineering, finance and other fields at the airport, and achieving a goal that Scully Leiponis had set out to accomplish—keeping women in the aviation industry. Said Scully Leiponis, "It's a tough business, and keeping stellar young women engaged is so important."



TRUSTEE

CREATING THE FUTURE

"I've seen a more diverse workforce over the past five years than earlier. We are becoming more blind to gender. What's relevant is that they're smart, driven and want to learn." – LYSA SCULLY LEIPONIS

START GIRLS EARLY, BECAUSE "YOU CAN'T BE WHAT YOU CAN'T SEE"

The words "You can't be what you can't see" are attributed to Marian Wright Edelman, civil rights activist and founder of the Children's Defense Fund, and were cited several times by our interviewees to make the point that unless girls can see role models for success in technology and aviation, and unless they are exposed to the relevant STEM experiences at an early age, they are not likely to think of themselves as scientists, engineers, managers or aviators.

As Vaughn alumna **Niki Taheri** put it: "If you don't see women doing something, you don't think it's possible. Growing up, I saw women as teachers and nurses and secretaries. I was on track for medical school until I visited Vaughn and saw the robotics operation, and that was my 'aha' moment." Taheri went on to get a bachelor's degree in mechatronic engineering, was on the 2016 Vex U Robotics World Championship team and is currently working on her master's in industrial and systems engineering while employed at Volvo Group Trucks Technology.

Dr. Shouling He remembers the childhood experience that directed her interest in math and physics toward engineering that eventually brought her to Vaughn with a bachelor's in electronic engineering, a master's in control engineering, a PhD in engineering and the right skill set for the newly launched mechatronic engineering program: "When I was in my second year of middle school, I took a physics exam and was the only student out of 300 to get a score of 100%. As a reward, my teacher gave me a set of radio parts and I built a radio. I was just 13 and not many people had radios. Suddenly I could listen to music and broadcasts. It was so exciting and opened a whole new world to me! I hadn't known anything about engineering, but that was what I wanted to study when I went to university."

Grace Davis '19 was fortunate to be exposed to aviation and engineering at a very early age. Growing up on the coast of Maine, she sailed and helped her father build boats. For her ninth birthday, her father got her a ride on an airplane. "The pilot let me hold the controls, and that was it!" she said. Davis graduated with a bachelor's degree in mechanical engineering technology and interned at Daimler Trucks North America and Eaton Aerospace before getting hired at Northrop Grumman Mission Systems.

It is widely known that stereotypes and cultural norms quell girls' interest in STEM, and that the gender disparities develop early. Women in the Vaughn community are keenly aware of the importance of outreach to girls even before high school and middle school, and are actively engaged in programs and workshops they hope will fill the STEM pipeline of the future with talented girls. "By the time girls are in high school, they may be unconsciously deselected, so we have to get to kids early and get them into STEM," said Assistant Professor Deb Henneberry. "The industry needs them, and from the social justice standpoint and meeting their potential, kids need to know all of the options out there."

Dr. Maxine Lubner does STEM outreach to girls through a summer camp at the Intrepid Museum called GOALS for Girls, a program designed to reach girls from underserved communities. Said Lubner: "Once girls understand the thrill, fun and joy of aviation, gender doesn't matter! Outreach to young students is what's important now."

Karen Batson '04, CASS director at Atlas Air Worldwide and an adjunct professor at Vaughn, is also the owner of two Mathnasium franchises. Mathnasium is a math-only learning center for kids in grades 1 through 12 that uses its own methodology to help math make sense to kids. "Mathematics is the M in STEM, and it's so important to get girls started early on paths to engineering and aviation that offer so many opportunities," said Batson, who is also a facilitator for Girls Who Code, a free coding club for girls, and allows the club to use the Whitestone Mathnasium for weekly meetings.

At Volvo in Greensboro, NC, Taheri's IEEE chapter is doing virtual STEM workshops during the pandemic with elementary school children. "Seeing women in these fields makes young girls want to do it. If you don't see it, you don't think it's possible," she said, adding, "When you have more girls, you get more girls!"

Vaughn regularly works with middle and high schools to foster interest in STEM activities through club mentorships and precollege opportunity programs.

CREATING THE FUTURE

All of the alumni we interviewed spoke about the support and counseling of career services, the financial aid and funding to attend conferences, the mentoring and accessibility of faculty and the positive impact of a female president.

Emily Lilian Todd
1865 to 1937

Todd was a self-taught inventor who grew up with a love of mechanical devices. In 1909, The New York Times identified her as the first woman in the world to design airplanes. She quickly recognized the importance of aviation and started the first Junior Aero Club in 1908 for future aviators. Though she never piloted her own plane, her aircraft did make a short flight in 1910.

YES, VAUGHN IS SUPPORTIVE. YES, THERE'S STILL MORE WE CAN DO

In these diverse voices we heard much consensus about the supportive environment provided for women by Vaughn College, and the impact of President Dr. DeVivo. Across the board, the alumni we interviewed spoke not only about the clubs, but also about the support and counseling of career services, the financial aid and funding to attend conferences, the mentoring and accessibility of faculty and the positive impact of a female president who "gets it" and is also a great role model. Drs. He and Lubner, along with assistant professor Henneberry, agreed on the significance of having a female president who is so supportive of women pursuing these careers, and spoke of their own efforts to help students succeed by advising their clubs, mentoring and bringing female students to conferences. Lubner said, "I work hard to make sure there are a lot of women as role models in my speaker series, and have them talk about their own paths and experiences."

Trustees Posner, Scully Leiponis and Ward-Callan were unequivocal in affirming Vaughn College's commitment to making the college a welcoming place for women. "From my first encounter with Vaughn," said Ward-Callan, "it was clear that it was a welcoming environment for women, with a president who is an impressive woman and a fabulous role model, and three female trustees who represent various aspects of engineering, management and aviation," Scully Leiponis added: "Sharon's leadership, continuity and advocacy ensure that Vaughn is an institution offering opportunities and endorsing women in the aerospace and technical area. She has promoted SWE and IAWA and worked to position Vaughn to help women in this industry."

Grace Murray Hopper
1906 to 1992

A computer pioneer and United States Navy rear admiral, Hopper was one of the first programmers of the Harvard Mark 1 computer and the first to develop the theory of machine independent programming languages, the basis of COBOL, an early high-level programming language still in use. She received her PhD in mathematics at Yale in 1934. The US Navy guided-missile destroyer USS Hopper was named for her.

"THERE IS STILL AN OPPORTUNITY TO IMPROVE. THE LAST SURVEY THAT I SAW SHOWED ABOUT 13% OF ENGINEERS ARE WOMEN, 26% OF COMPUTER SCIENTISTS ARE WOMEN AND 7% OF PILOTS. VAUGHN IS COMMITTED TO INCREASING THE NUMBER OF WOMEN IN THEIR PROGRAMS." —Trustee Mary Ward-Callan

MESSAGE FROM PRESIDENT DR. SHARON B. DEVIVO

When I joined Vaughn College as a staff member in 1996 about four percent of the student population was female and there was an equally small number of women faculty members. In the last 24 years we have made progress, increasing both the number of women students to 13 percent and full-time female faculty to 25 percent. That progress is due wholly to the committed women, and men, in our community including trustees, faculty and staff who have sought to "Embrace Diversity" one of our core values. As you can read from all of the women represented in this issue of the Vaughn College magazine, no one sees the work as done. In my new role as chair of the Youth Access to American Jobs in Aviation Taskforce, we are developing strategies to attract underrepresented groups to aviation and aerospace at the national level. This is work that will be presented to Congress and will directly inform the outreach we do at Vaughn to have an even greater impact on our New York City community where we plan to expand our outreach to those at middle and, eventually, the elementary-school level.

Unfortunately, the pandemic has impacted some of our new traditions at Vaughn which includes annual special luncheons with each group of women—freshmen, sophomores, juniors and seniors. We invite a rotating group of women leaders at Vaughn who gladly share with these soon-to-be young professionals how we have navigated our careers and families. There have been so many young women over the last two decades who it has been my privilege to walk beside as they complete their degree, support them and offer any help that I can—that is my greatest source of pride and provides a steady stream of motivation to do even more as we seek to attract more women to technical fields. We need great minds to move us forward and groups that have traditionally not been represented in STEM fields can be the power to take us into a bright future.

VAUGHN COLLEGE CHALLENGES COVID-19: RISING AGAINST THE WIND

HENRY FORD, THE AMERICAN INDUSTRIALIST AND FOUNDER OF THE FORD MOTOR COMPANY, SAID "WHEN EVERYTHING SEEMS TO BE GOING AGAINST YOU, REMEMBER THAT AN AIRPLANE TAKES OFF AGAINST THE WIND, NOT WITH IT."

No group knows the truth of that statement better than the students, faculty, and staff of Vaughn College. In an unprecedented time, every member of the Vaughn team reached deep within themselves to brace against the coronavirus onslaught and rise above it. That commitment and courage started at the very top, under the careful guidance of Vaughn College President and Chief Executive Officer Dr. Sharon B. DeVivo. In far-ranging interviews, DeVivo is credited with efficiently marshalling Vaughn resources to quickly respond to student and faculty needs in the face of the COVID-19 pandemic. The result was the remarkable mobilization of faculty and staff, and the clear willingness of the Vaughn student body to embrace change.

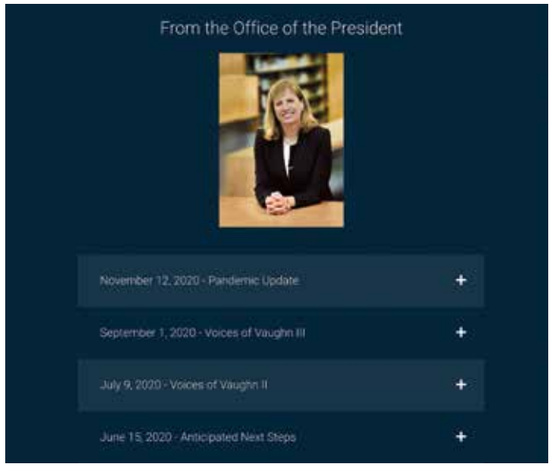
A NEW TEACHING PROTOCOL IN JUST FIVE DAYS – VAUGHN FORWARD

On March 5, when it became clear the coronavirus would require Vaughn campus to close, DeVivo immediately convened senior faculty and staff to discuss the best ways to ensure uninterrupted safety and learning for the student body and Vaughn community. Over the course of five days, faculty and staff participated in lengthy brainstorming sessions and intensive training in the latest virtual teaching technologies. Much of this was uncharted territory, and required a new mindset. Within those five days, senior faculty identified potential areas of concern and set in motion the steps necessary to help students stay healthy and safely learn; help professors navigate the nuances of virtual teaching; and to "COVID-proof" the Vaughn campus itself. That included checking ventilation and filtration systems, lowering classroom and lab capacity, marking floors and removing seats in classrooms across campus for a time when students would be allowed back on campus. It also included the purchase of a variety of new equipment such as cameras, microphones and speakers.

One of DeVivo's first steps was to assign each senior faculty member a list of 250 students to directly contact. That meant that each and every Vaughn student received a personalized phone call, making sure they had the information, money and support (including a laptop loaner program) needed to face the COVID-19 challenge. The College's size and commitment to students made this novel approach possible. By reaching out one-on-one, Vaughn demonstrated its flexibility and unique ability to offer targeted academic, financial and emotional support to its students and provide a direct helpline for those in need. It also reinforced the College's commitment to a holistic approach to education.

Throughout this time, Vaughn's residence hall and food service remained open to support students who could not return home, or were better equipped to handle their studies with the internet capabilities and support services on campus.

These multiple initiatives were championed by DeVivo and led by Dr. Paul LaVergne, vice president, academic affairs; Dr. Edgar Troudt, assistant vice president, academic affairs; Elaine White, dean



of students, and assistant vice president of student affairs; and Sarah Tsang, assistant director of student activities. Every success was the result of full faculty, staff and student participation and rapid response.

As needs were defined, dedicated faculty interest groups arose with specific areas of focus, including technology, communication and teaching. The teaching group worked on test design to combat challenges that arose from online testing that included personalized tests and multiple versions of the same test, to limit answer sharing. It was a perfect example of pedagogy meeting COVID-19 and prevailing.

COMMUNICATION AND FLEXIBILITY

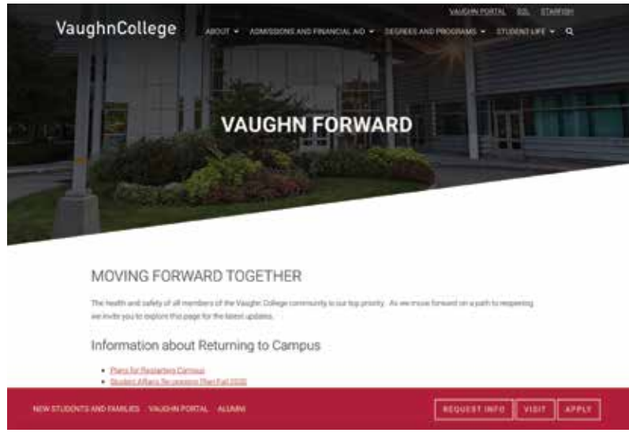
In addition to structural and teaching changes, Vaughn increased its already high level of student communication. A new Vaughn Forward website page was created to share important information with the community at a moment's notice. Dr. DeVivo's continuous updates from "The Office of the President," and three "Voices of Vaughn" videos featuring faculty, staff, students, alumni and employers alike were created to show support and direct students to support resources. In addition, the thrice-weekly meetings still being held by senior staff have increased interdepartmental communication, academic excellence and student support on all fronts.

As a smaller institution, compared with many of its peers, Vaughn was able to be nimble, flexible and responsive. If something worked, it was put into place immediately across disciplines. If something did not, it was immediately revised, improved or retired.

INFRASTRUCTURE AND SYNCHRONOUS AND ASYNCHRONOUS LEARNING

As the full lockdown ended and students were allowed back onto campus, LaVergne and Troudt, along with Vaughn's facilities and security teams, walked the entire campus, classroom by classroom, to determine the best ways to safely utilize each and every space. That included accommodating social distancing while still supporting appropriate live and virtual teaching needs. This was especially critical for labs that required the in-person, hands-on training required by the Federal Aviation Administration (FAA), and for faculty who needed to instruct from classrooms, rather than their homes. As time moved forward, LaVergne and Troudt also worked closely with the IT department to ensure that the high-end software necessary to continuously improve Vaughn's online capabilities for both faculty and students was in place.

As with many institutions, Vaughn allowed students to decide whether they wanted to return to campus after the formal lockdown ended, or take classes virtually. Returning to campus was an exciting



VAUGHN RECOGNIZED THE IMPORTANCE OF MOVING STUDENT-FACING CAMPUS SERVICES ONLINE AS QUICKLY AS POSSIBLE, SO STUDENTS WOULD NOT LOSE ANY CONTINUITY OF SUPPORT.

option, as both students and teachers responded with speed and creativity to ensure uninterrupted academic continuity and physical safety. Most students opted to continue online learning at home, which, importantly, did not result in lower grades or absences. One of the reasons? Synchronous and asynchronous learning options were offered.

Simply put, synchronous learning means that a faculty member can instruct students in person at the same time as they teach students joining remotely. Once the classrooms were outfitted with the right technology, synchronous learning proved to be one of the most popular and greatest successes coming out of the COVID-19 changes. In fact, LaVergne shared that a positive surprise was the fact that students seemed to feel more comfortable speaking up in a Zoom class environment than a strictly live one.

But what about students who wanted more flexibility to deal with their jobs, families and health concerns? Vaughn answered this need by making asynchronous learning available as well. This enabled students to view the exact same lectures that were presented live, but were recorded and made available to them at any time, day or night. This has been a tremendous advantage for working students with children and families who were also now learning from home. In fact, this approach has worked so well that Vaughn plans to continue this offering when the pandemic subsides.

Zoom Room Hours and Meeting Room

Zoom Room Q&A Hours and Meeting Room IDs:

Academic Information:
223-867-2792; (**M**-**Th**: 3-4 p.m.)

ATI Information:
223-867-2792; (**M**-**Th**: 4-5 p.m.)

Jian Qiao Information:
223-867-2792; (**T**: 10 a.m.-11 p.m. and **Th**: 4-5 p.m.)

STARFISH AT THE PERFECT TIME

Several years ago, Vaughn adopted the Starfish retention system, an integrated technology platform that helps students succeed by facilitating engagement with their campus community of professors and peers. Starfish enables faculty to track attendance and academic performance, as well as other success indicators, to indicate where and when students may need support. Professors can reach out to students and direct them to resources necessary to help them succeed. The Starfish system ensures that no student is left behind, whether they are learning live, online or in a hybrid approach.

ZOOMING INTO THE FUTURE

One of the most novel and successful Vaughn initiatives launched during the pandemic has been the Zoom front desk. Spearheaded by LaVergne and Troudt, the Zoom desk is manned by faculty, staff and students who can answer student questions and direct them to the right places to get the information and support they need. It has turned out to be used extensively, and will continue to be an important community resource, even after the pandemic.

Beginning in March, Vaughn recognized the importance of keeping students employed, as many have lost employment due to business closures. The Zoom front desk turned out to be a perfect place where students could continue to earn an income while benefiting the College community.

ZOOM AND STUDENT SUPPORT SERVICES

Vaughn recognized the importance of moving student-facing campus services online as quickly as possible, so students would not lose any continuity of support. Critical services such as tutoring, advisement and the writing and math centers were made accessible through Zoom. According to Dean of Students White other factors that occur outside the classroom also impact students, "These include the need for financial support; a sense of belonging and inclusion; emotional security and mental health and wellness." White and Tsang have worked to make sure there are as many activities available to students as there were before the pandemic. These include movie nights, a homecoming dance, virtual yoga classes, volleyball games and trivia nights. As for financial support? Vaughn is recognized for its extensive scholarship and financial aid services. Teams are always available to students, both in person and online, to make sure they are secure and able to manage their academic financial obligations.

In these unprecedented times, additional support for students was available through a food pantry that was set up at the beginning of the closure, as well as the initiation of a Student Emergency Fund. A $250 grant is available to any student in need of immediate help, from fixing a broken laptop, to paying a late cell phone bill, to helping with the rent.

RETURNING STUDENTS, GRADUATING STUDENTS

At a time when many colleges are experiencing attrition, Troudt spearheaded a unique initiative to bring non-matriculated students who had dropped out of college back to Vaughn. Many students were unable to continue their studies because of financial and logistical impediments, including distance from the campus, family responsibilities, job obligations and other unexpected challenges. Troudt realized that the current emphasis on virtual learning could be just the opportunity these students needed to return to their studies. To date, more than 100 individuals have returned to their studies and become Vaughn students again.

Another learning uncovered from the pandemic is inclusivity through Zoom. Vaughn has been ranked no. 1 in the country for upward mobility, and many of its graduates are first-generation Americans, or the first in their families to attend college. As such, commencement is a time of great pride and accomplishment, and friends and family want to recognize and celebrate with their graduates. This year, the pandemic guidelines prohibited the gathering of large crowds, but Vaughn responded to this challenge with its customary flexibility: It held the convocation and commencement ceremonies virtually. The result was an unprecedented worldwide audience of more than 1000 viewers. It was a wonderful feeling to have families from around the globe being able to participate and share students' successes with them. Vaughn will continue to make this opportunity available to graduates' families.

While challenges remain, Vaughn is clearly honoring its commitment to providing its students with futureproof careers, no matter what the future holds.

VAUGHN PARTNERS WITH LATE STUDENT'S FAMILY AND INDUSTRY PROFESSIONALS TO OFFER "A LEGACY OF HOPE"

On Tuesday, December 15, the Vaughn College community gathered via Zoom to recognize and celebrate "A Legacy of Hope" and honor the life of Daniel Turner, a Vaughn student pilot whose family has recently founded a scholarship in his name. Alumni and aviation industry leaders joined in to share their experiences and dedicated support for the future leaders of aviation and aerospace. Turner was the finest example of a Vaughn student who understood the hard work involved in making dreams a reality. The scholarship will support Black students in need and honor his legacy.

"Daniel was exceedingly loved by our family and by his friends," said Turner's sister Andrea. "His motto was 'don't waste your life,' which left an indelible imprint on all of us."

Turner was a sophomore at Vaughn College and among the first group of students selected for the Redbird flight training program with partner institute Redbird Skyport in San Marcos, Texas. He had received his private pilot's license and instrument rating, and was working on his next rating, the commercial certificate, when he unexpectedly passed away on a day off while engaged in recreational activity.

Daniel's family and friends have been working closely with the College to set up the Daniel Turner Scholarship fund, which will benefit future Black students who are pursuing their dream of becoming commercial pilots.

Industry leaders Nick Calio, president and chief executive officer at Airlines for America, Mary-Ellen Jones, vice president, Asia-Pacific sales at Pratt & Whitney, Gary J. Spulak, president of Embraer Aircraft Holding, Inc., and Bobbi Wells, president of the International Aviation Women's Association and vice president of safety and airworthiness at FedEx Express, were guest speakers at the virtual event. They delivered inspiring messages about the future of aviation and why institutions like Vaughn College are critical to preparing the future leaders of aviation and aerospace, and encouraged attendees to contribute to the scholarship fund in Turner's honor.

"I want to see other people blessed because of him," said Andrea Turner. "It is our hope that the scholarship is perpetuated for many years to come and that people will know that he wasn't an ordinary kid. He was a wonderful young man. He was loved deeply."

Turner's family also attended the event, and his classmates sent video messages sharing their memories and their hopes for the scholarship fund's success. Donations to the Daniel Turner Scholarship fund can be submitted at vaughn.edu/daniel-turner-scholarship.

INDUSTRY LEADERS discussed Vaughn's critical role in the future of Aviation on December 15. They also recognized and celebrated Daniel Turner and the recently funded scholarship in his name.

Nick Calio
President and CEO
Airlines for America

Mary-Ellen Jones
Vice President
Asia-Pacific Sales
Pratt and Whitney

Gary J. Spulak
President
Embraer Aircraft
Holding, Inc.

Bobbi Wells
Vice President
Safety & Airworthiness
Air Operations, FexEx Express
President, IAWA

PORT AUTHORITY SCHOLARSHIP RECIPIENTS CONTINUE TO FLOURISH THROUGH THE PANDEMIC

In 2018, as part of the LaGuardia Airport redevelopment project, the Port Authority of New York and New Jersey (PANYNJ) partnered with Vaughn College to offer a robust new scholarship program offering local Queens residents the chance to compete for tuition-free, four-year scholarships combined with guaranteed internships and full-time airport operations positions at PANYNJ upon graduation.

Six young people's lives were changed when they were awarded the LaGuardia Redevelopment Opportunity Scholarship for fall 2019. They are Raihan Mamun '23, Jonathan Quezada '23, Lilidania Rodriguez '23, Anthony Uran '23, Scarlet Zambrano '23 and Christopher Zuna '23. The scholarship is part of The Port's ongoing commitment to providing opportunities for members of the local Queens communities, especially those adjacent to the airport, to share in the economic benefits of LaGuardia Airport's redevelopment program.

Celso Alvarez, associate vice president of admissions, credits Vaughn President Dr. Sharon B. DeVivo and PANYNJ Executive Director Rick Cotton, with the development and structure of the new scholarships. "The long-standing alliance between Vaughn and the Port Authority enabled this truly outstanding scholarship opportunity."

To apply for the PANYNJ scholarships, candidates had to submit essays that showcased their personalities, personal stories and hopes for their futures in the aeronautics and STEM industries. Once enrolled at Vaughn, recipients would need to maintain rigorous academic standards; successfully complete Vaughn's career development seminar; and participate in Vaughn's leadership academy.

"We are incredibly excited about the opportunity to work with the Port Authority on the redevelopment scholarship program," said DeVivo. "Our mission of providing a transformative education, with a lifetime of opportunity for every student, will continue to flourish while Queens residents share in the benefit of LaGuardia's redevelopment."

The first group of scholarship recipients obtained paid summer internships at PANYNJ airports this summer, despite the pandemic. What should have been in-person opportunities shifted to virtual internships. Despite that, one of the first things every student mentioned was how enjoyable and valuable the internships were. They also applauded the high level of support and guidance given to them by their internship advisers, and how welcome they were made to feel throughout the process. "The Port Authority is rich with opportunity, and these students learned that firsthand," commented Alvarez.

Raihan Mamun: From Bangladesh to Vaughn

From an early age, Mamun wanted to be a pilot. As a student in Bangladesh, he studied engineering and physics, and realized that these fields might just be the launchpad to his future. After immigrating to the United States in 2016, he continued his studies, with the hope of expanding his knowledge of mechanics, as well as physics and engineering. Mamun also lived by LaGuardia Airport, and always loved to watch the planes. When he saw the flyer announcing the Port Authority scholarship, he knew it was the perfect opportunity.

Mamun applied, knowing that it would be a competitive process. In fact, he shared that he was both delighted and a bit surprised when he won. "This scholarship gives me the chance to study exactly what I want. With the combination of a four-year scholarship and great summer internships, I feel confident in what the world has to offer." Mamun also said that the Port Authority internship experience helped him stretch and grow professionally, and to feel comfortable in multiple new situations. One of his internship highlights? Getting to tour LaGuardia Airport and see newly opened Terminal B. "It's so beautiful, and the future looks incredible."

Lilidania Rodriguez: Watching the Stars

Five-year-old Rodriguez loved to watch the stars in the night sky. She would stare out the window and wonder how and why things were the way they were. It made perfect sense that she would grow to love science and research, and then to dream of being an astronaut. Today, Rodriguez is still fascinated by the world around her, especially in anything that flies – from planes to rockets to satellites. Her chosen field of study: mechantronic engineering.

Rodriguez knew that the Port Authority scholarship would be a great fit for someone with an inquisitive mind like hers. It was also a great opportunity to honor her mother's advice to "do better, study hard, be proud and go after your dreams." She was a bit intimidated when she won the scholarship, but quickly realized that the Vaughn and Port Authority advisers were friendly, supportive and always willing to answer questions.

Rodriguez spent many years believing that common sense was more important than creativity and emotions. However, she shared in her essay that, today, she feels true balance is critical for a successful life and career. "The scholarship and internship are perfect for me because they allow me to explore and express every side of me." She loved her time with the Port Authority this summer, and hopes to do it again soon.

Jonathan Quezada: Turning Worry to Focus

Quezada is proud to be one of the Port Authority scholarship winners, and appreciates the scope of the opportunity. He is also thrilled with his internship experience. "I got to work with so many departments, including management, concessions, construction, security and all general airport operations. It made me appreciate even more the level of expertise at the Port Authority and its airports."

Quezada feels that one of the things he shared in his scholarship essay may have helped him stand out in the competitive process. He wrote that while he was in high school, his mother became ill and almost died. Another person might have been overwhelmed. Instead, Quezada used the experience to analyze himself, to determine how he could be a better son and support for his mother. He became more focused, empathic and careful—all great qualities for a son… and a pilot-in-training.

The first thing Quezada did when he found out that he won the scholarship was to call his mother, who was away visiting family in Ecuador. It seemed fitting, since her illness helped him become stronger and clearer about his priorities. "I'm very grateful for the scholarship, and know it will be totally beneficial to my career."

President DeVivo with 2019 PANYNJ scholarship recipients at the award ceremony.

"WE ARE INCREDIBLY EXCITED ABOUT THE OPPORTUNITY TO WORK WITH THE PORT AUTHORITY ON THE REDEVELOPMENT SCHOLARSHIP PROGRAM..." —President DeVIvo

Scarlet Zambrano: A Dream Come True

"I was so excited to win the scholarship, and my internship was the best virtual experience ever," says Zambrano. "The advisers checked in day and night, I never felt left out and I had the chance to learn so much from so many different people. I'm so grateful for the experience."

Zambrano had been attending Vaughn open houses since she was a freshman in high school. By doing so, she developed a valuable and productive relationship with a female faculty adviser. In time, it was that adviser who brought the scholarship opportunity up to Zambrano. Her support was invaluable as Zambrano moved through the male-dominated STEM studies in high school, in preparation for college. When Zambrano was awarded the scholarship, she was aware that the gender discrepancy still existed, but was not daunted.

She had always known that she was interested in aviation, and she knew that, for her, Vaughn was the way to go. Zambrano focused on her studies, earning the highest marks possible; she was determined to go to college and make her family proud. In her essay, Zambrano talked about the importance of passion and the fact that one should not let fear or impediments stand in the way of their dreams. She says, "If you take every opportunity that comes your way, nothing is impossible."

Zambrano is active with Women in Aviation International, and she champions women in the sciences. She is also committed to being a role model and to helping open doors for girls and women in aviation, STEM and medicine. It is no surprise that the selection committee chose Scarlet as a scholarship recipient, and she will shine with the opportunity.

Christopher Zuna: Virtual Excellence

Like the other winners, Zuna was thrilled to win the scholarship. "I was shocked, relieved, and very thankful," he says. "It is amazing to get a four-year scholarship and to intern with a great organization like the Port Authority." It is an exciting development for the 8-year-old boy who loved to play with his electrical airplanes.

Today, Zuna is studying avionics, and is committed to making the most of his scholarship opportunities. However, he was concerned about the internship, since it would be virtual due to COVID-19. He thought there might be time management issues, limits on the quality of instruction and minimal assistance from the advisers. Zuna said he could not have been more mistaken. "It was a great experience. We had lots of support, the advisers were available to us all the time, we could ask as many questions, and get as much instruction, as we wanted, and everything was top-quality. It was fantastic."

Zuna's essay stood out for his commitment to others, and to excellence. He shared that, at age eleven, he joined the NY Military Youth Cadets in Queens. This organization helps young people develop strong characters, take responsibility for their actions, respect those around them, and to think like leaders. He is still involved with the group, so he can help new participants and "pay it forward."

Zuna concludes, "One of the best things about the scholarship and internship program has been the mentors. They were always available, totally committed to our success, and really made us feel like part of the Port Authority team."

THIS YEAR, THE 2020 LAGUARDIA REDEVELOPMENT OPPORTUNITY SCHOLARSHIP WAS AWARDED TO FIVE STUDENTS FROM QUEENS.

The recipients are: Kristian Nieves '24, Alvin King '24 and Suraiya Nawaz '24, from East Elmhurst, Anton DeGuzman '24, from Corona, and Chasisty Melo '24, from Astoria.

VAUGHN COLLEGE APPOINTS BARRY ECCLESTON TO BOARD OF TRUSTEES

RETIRED PRESIDENT AND CHIEF EXECUTIVE OFFICER OF AIRBUS AMERICAS, INC. BRINGS A WEALTH OF EXPERIENCE AND KNOWLEDGE TO VAUGHN.

Vaughn College has announced that Barry Eccleston, retired president and chief executive officer of Airbus Americas, Inc., is the newest member of its board of trustees. Eccleston brings five decades of experience working in, and providing dedicated support to the aviation and aerospace industry. He is an aeronautical engineer, pilot and past president of the Wings Club and was awarded an honorary doctorate from Vaughn in 2007.

"We are very fortunate to have someone with Dr. Eccleston's impressive qualifications supporting the College and sharing his valuable insights as we continue to launch the next generation of engineers, managers and technicians into the fields of transportation, manufacturing, robotics, public utilities and more," said Vaughn College President Dr. Sharon B. DeVivo. "Eccleston exemplifies a leader with vision and passion who is a longtime champion for Vaughn's students and shares our vision of providing a transformational education that leads to a lifetime of opportunity."

Eccleston joined Airbus in August 2005 and retired as chief executive officer in 2018, after serving for more than 12 years in that role. At Airbus Americas, he was responsible for all aspects of the Airbus commercial business in North America including sales and marketing, engineering, manufacturing operations, service, logistics, training and all shared services. During this time Airbus' market share of sales in the region grew from approximately 20 percent to more than 70 percent in 2017.

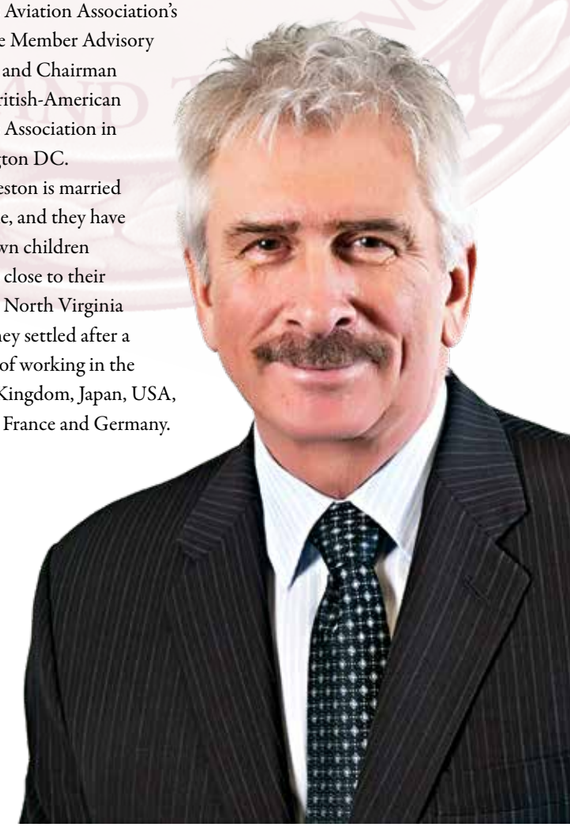
Prior to Airbus, Eccleston served as vice president and general manager for Honeywell's Propulsion Systems Enterprise, and previously as Honeywell's vice president of commercial aerospace for Europe, the Middle East and Africa. Before Honeywell, he held executive positions at Fairchild Dornier Corporation, Rolls-Royce and International Aero Engines.

"I am proud to have made a career in the aviation business for more than 50 years, and it has been rewarding in so many ways," said Eccleston. "Now it is time for me to give back to the industry, and to hand over the baton to the next generation of leaders. I am truly excited to bring my knowledge and experiences to Vaughn College to help further its success, and most importantly—the ambitions of its talented students."

Eccleston holds a bachelor's degree with honors in aeronautical engineering from Loughborough University in England, which also awarded him an honorary doctorate, and he completed the International Executive program at the Institute of Management Development in Switzerland.

He currently serves on two public company boards for Wizz Air Holdings PLC, a UK listed airline operating in Europe as chairman of the remuneration committee, a member of the nomination committee and board member responsible for employee engagement; and FLYHT Aerospace Solutions, a small aviation aftermarket business in Toronto as executive chairman. Eccleston has been a member of the Aero Club of Washington Board, the Flight Safety Foundation Board, and the National Business Aviation Association's Associate Member Advisory Council and Chairman of the British-American Business Association in Washington DC.

Eccleston is married to Valerie, and they have two grown children who live close to their home in North Virginia where they settled after a lifetime of working in the United Kingdom, Japan, USA, Canada, France and Germany.



VAUGHN COLLEGE AGAIN RECEIVES PRESTIGIOUS ABET-ACCREDITATION

RECOGNITION FOR STUDENT FOCUS AND GOLD-STANDARD ACADEMICS

As part of its commitment to a futureproof education, Vaughn College sustains the highest quality of associate, bachelor's and master's level degree programs available. ABET has validated that fact by reaccrediting Vaughn's mechatronic engineering bachelor's degree and six engineering technology associate and bachelor's programs.

ABET is the global accreditor of college and university programs in applied and natural science, computing, engineering, and engineering technology. ABET accreditation ensures that programs meet standards to produce graduates ready to enter critical technical fields that are leading the way in innovation and emerging technologies and anticipating the welfare and safety needs of the public. Its findings are considered the basis of quality for STEM disciplines around the world.

"We are very gratified to once again receive this acknowledgment from ABET, the premier engineering accreditation organization," said Vaughn College President and Chief Executive Officer Dr. Sharon B. DeVivo. "Receiving reaccreditation is a testament to the ongoing efforts by our faculty and staff to ensure that we provide a high-quality, transformational education for our students—one that can change the trajectory of their lives."

Engineering Department Chair Dr Hossein Rahemi working with students in the energy conversion/smart grid power system lab.

THE GOLD STANDARD

ABET recently reaccredited Vaughn's popular and unique mechatronic engineering bachelor of science degree. This degree is currently one of only four ABET-accredited mechatronic degree programs in the US and the only one in the Northeast.

The Engineering Technology Accreditation Commission (ETAC) of ABET also reviewed Vaughn's previously accredited engineering technology programs and recognized the following programs with reaccreditation:

- Electronic Engineering Technology – Avionics, Bachelor of Science Degree
- Electronic Engineering Technology – General Electronics, Bachelor of Science Degree
- Mechanical Engineering Technology – Aeronautical, Bachelor of Science Degree
- Mechanical Engineering Technology – Computer-Aided Design, Bachelor of Science Degree
- Aeronautical Engineering Technology (Pre-engineering), Associate in Applied Science Degree
- Electronic Engineering Technology – Avionics, Associate in Applied Science Degree

Associate Professor Dr. Shouling He working with students in the mechatronic systems lab.

One of the key elements of ABET accreditation is the requirement that programs continuously improve the quality of education provided. As part of this continuous improvement requirement, programs set specific, measurable goals for their students and graduates, assess their success at reaching those goals, and improve their programs based on the results of their assessment.

The ABET team noted Vaughn strengths in supporting students in many areas, including:

- Providing students with the financial support to attend national conferences to present research and network with industry representatives, resulting in internship and employment opportunities
- Promoting student participation in extracurricular activities, including numerous clubs, professional societies and student competitions where Vaughn's teams have consistently won top awards in national and international competitions such as VEX U robotics and unmanned aerial vehicle competitions ahead of teams from larger universities
- Offering the unique Summer Engineering Experience (SEE) program designed to develop students' abilities and confidence in programming, hands-on experimentation, technical report writing and presentation

"Graduates from ABET-accredited programs are known to have a solid educational foundation with critical thinking and problem-solving skills and are seen as the future leaders of tomorrow," said Dr. Hossein Rahemi, engineering and technology department chair.

"WE ARE VERY GRATIFIED TO ONCE AGAIN RECEIVE THIS ACKNOWLEDGMENT FROM ABET, THE PREMIER ENGINEERING ACCREDITATION ORGANIZATION..."

—DR. SHARON B. DEVIVO

"We are incredibly pleased to once again receive accreditation for our mechatronic engineering degree as well as for all of our engineering technology programs."

Sought worldwide, ABET's accreditation is a voluntary, peer-review process that requires programs to undergo comprehensive evaluations, and reaccreditation is a hallmark of excellence.

Dr. DeVivo adds, "Graduates of Vaughn's ABET-accredited mechatronic engineering and engineering technology programs are perfectly positioned to find futureproof careers in aerospace, automation, automotive, healthcare, computer, communications, and other high-tech industries that are continuing to grow and look for qualified graduates."

VAUGHN AVIATION PROGRAMS MEET THE GOLD STANADARD WITH AABI ACCREDITATION

A PROCESS THAT BEGAN FOUR YEARS AGO CULMINATED WHEN VAUGHN COLLEGE'S BACHELOR'S DEGREE PROGRAMS IN AERONAUTICAL SCIENCES AND AIRCRAFT OPERATIONS RECEIVED ACCREDITATION BY THE AVIATION ACCREDITATION BOARD INTERNATIONAL (AABI)

The historic strengths of Vaughn College's aviation programs have been retooled and upgraded to even higher futureproof standards with a five-year accreditation from the Aviation Accreditation Board International (AABI), which serves as the official accrediting body for collegiate aviation. This certification indicates that Vaughn's bachelor's degree programs in aeronautical sciences and aircraft operations have met a range of quality criteria demonstrating a high level of performance and integrity recognized by the industry, the educational community and the public.

"We got the good news on August 24, and this will make a big difference for Vaughn and for our students," said Aviation Department Chair Captain Pete Russo. "Some airlines will only hire pilots from aviation schools that meet the AABI standard. They know they can rely on the AABI standard because AABI continuously works with the industry to update their criteria, keeping college aviation programs in tune with what industry and regulators need. For airlines, it takes the guesswork out of the hiring process."

The College's bachelor of science degree in aeronautical sciences provides students with the flexibility to incorporate flight qualifications with academic studies while exploring career opportunities in the aviation, management and technology fields. The bachelor of science aircraft operations degree is a professional pilot program that provides students with proficiency in all areas of pilot skills to achieve the certified flight instructor level.

The accreditation process involved an intensive self-study of these degree programs and accomplishments, which were reviewed and measured against AABI standards. AABI's evaluation team visited Vaughn's campus in March 2019 and followed up in March 2020 with a virtual visit, after which a report was filed and reviewed, resulting in Vaughn's certification, effective as of July 2019. This winter, Vaughn will send a progress report to AABI based on a newly implemented assessment program.

Aviation Department Chair Captain Pete Russo reviewing course material with students in his office.

AABInternational

"WHEN COURSES ACHIEVE THEIR TARGETED OUTCOMES, IT SHOWS WE'RE DOING THE BEST WE CAN DO FOR OUR STUDENTS TO PREPARE THEM FOR THEIR CAREERS"

—AVIATION DEPARTMENT CHAIR CAPTAIN PETE RUSSO

According to Russo, the assessment data required by AABI enables Vaughn to deliver optimal outcomes for students. "AABI insists on continuous improvement, so you have to keep assessing your courses. We have outcomes for each course that are pointed to careers in aviation—dispatcher, pilot, air traffic controller, flight manager. When courses achieve their targeted outcomes, it shows we're doing the best we can do for our students to prepare them for their careers. If a course doesn't achieve the target, we can figure out the problem and address it." The activation of the new Desire2Learn (D2L) course management system will allow the aviation department to provide assessment data to AABI and monitor the programs' progress and improvement, while moving Vaughn College as a whole closer to a unified assessment program.

"We've worked hard to meet the high standards for AABI accreditation," said Russo, "and we look forward to a long, positive relationship with AABI in the years ahead. They appreciate the uniqueness of Vaughn as an aviation college in an urban area producing qualified professionals who reflect the extraordinary diversity of our Queens community. We are confident this AABI accreditation will help our students meet their educational goals and help us meet our mission to transform their lives through professional careers in the aviation community."

Students receiving instruction in the air traffic control radar lab and in the flight simulator lab.

MARIDALIA SANGIOVANNY '04 | Alumna

As Senior Crew Planner at Atlas Air, This Vaughn Alumna Enjoys the Human Side of Aviation and the Complex Puzzle of Scheduling

Aviation appealed to Maridalia Sangiovanny '04 early on.

"My dad worked for an airline and from him, I had more of an idea of what goes on behind the scenes, what goes into making planes fly, which a lot of people don't know," she said. By the time she was in her senior year of high school, Sangiovanny knew she wanted to grab the opportunity to intern at the Port Authority of New York and New Jersey during her last semester. "That cemented it for me," she said about the experience as an assistant duty manager. "I saw how things really work, and I realized that I was interested in the operational side rather than the engineering side."

That clarity of focus brought her to Vaughn College (still called the College of Aeronautics until 2004), where she believed she could earn the management degree she wanted without taking on huge loans. Of her years at Vaughn, Sangiovanny said, "It was a small college and there was so much camaraderie, we all knew and helped each other out. Many of us were already working and the faculty all had industry experience and connections, so they were teaching from experience and not just from a book."

Soon after graduating with a bachelor's degree in aviation/airway management and operations, Sangiovanny was contacted by fellow Vaughn alumna Karen Batson '04, who had recently started working at Atlas Air Worldwide, operator of one of the world's largest fleets of Boeing 747 freighter aircraft. Batson had a goal to turn her department around and believed that Vaughn graduates were great candidates. "Karen had taught at Vaughn and she knew the graduates' work ethic and capabilities, so a lot of us landed at Atlas through her suggestion," said Sangiovanny.

At Atlas, Sangiovanny started working in crew planning and has since risen to the position of senior crew planner with responsibility for maintaining long- and short-range flight crew staffing forecasts, trend analysis, budgeting and statistical reporting, and ensuring regulatory and contract compliance within the crew planning process. As Sangiovanny describes the job, "It's like a big, constantly changing puzzle, with the needs of crew members to reschedule and the requirements of our clients' cargo schedules. There are so many pieces to the puzzle that one change means a lot more changes. If you like puzzles, you'll like this job!"

In addition to the enjoying the complexity of the work, Sangiovanny also likes what she describes as "the human side of aviation," communicating with the pilots and supporting them. "It's so rewarding when pilots call with emergency situations and they know they can count on you to resolve things in a safe, efficient way that helps and supports them," she said.

Sangiovanny has found that not only is her job a great fit, but so are her colleagues, and feels happy to work with people she considers best friends in a company that is evolving and bringing more women into its workforce. "When I first started at Atlas," she said, "the management was all men, but there are a lot of changes now. In fact, my department now has more women than men, and recently, we voted to change our work schedule from the basic 9 a.m. to 5 p.m. five days a week, to four days on and four days off with longer shifts. It makes a really good work/life balance—and our manager supported the decision."

To sum it up, Sangiovanny said, "I was lucky that Karen Batson brought me in here—and by the way, she still calls me to push me forward, which is awesome. I'm still connected to Vaughn, and Atlas Air continues to hire talented students and give them opportunities for rewarding aviation careers."

GHANIA BENBELKACEM, PhD | Faculty

Born in Algeria, Dr. Benbelkacem earned her master's and PhD degrees in France and came to Vaughn in 2018 as assistant professor focused on mechanical engineering, drawn here because she saw that Vaughn's first goal is promoting student success.

"When I looked at Vaughn, I was so impressed by the learning resources to promote student success and the exceptional track record in upward mobility that proves it," said Dr. Ghania Benbelkacem. "And on a personal level, I like the way the small class size enables a closer interaction with students to foster their intellectual development. I measure my own success in the development of each student, so Vaughn was a good match for me."

A mechanical engineer with a focus on fluid mechanics, Benbelkacem earned her PhD with a focus on viscoelasticity and flow of complex fluids at Lorraine University France. In France, after two years of general engineering, students must choose a direction, and Benbelkacem chose fluid dynamics not only because of some inspiring professors, but also because she was curious about the mechanics of fluid and found flow to be "so complicated and fascinating." At Vaughn, she teaches thermodynamics and compressible flow, engineering mechanics, statics and dynamics, and engineering design. More than just sharing knowledge, she sees her goal as an educator is to develop students' critical thinking skills and their ability to truly integrate theory and practice.

"In the engineering field, this is a must," said Benbelkacem. "My role is to instill in the student's mind the relationship between theory and practical applications. Students must be able to take what they learn and apply all of it to solve an existing problem." Benbelkacem is enthusiastic about the capstone degree project for seniors, which she believes measures success. "Is the student able to apply their theoretical knowledge to a realistic project and solve the project in an innovative way that addresses all aspects—including the engineering, the environment, the safety standards? This shows the quality of the student," she explained.

The capstone project is also a favorite of Benbelkacem because it brings together what she loves about both teaching and research: namely, lifelong learning.

"As an instructor, I'm a full-time student, always. That is how I see it and that is one of the reasons I love teaching. I love when students ask questions that require me do research outside of my own area. It's lifelong learning and a unique opportunity to share knowledge and exchange ideas in a conducive environment."

Benbelkacem found her path to engineering at an early age. "In middle school, math felt like a game. It was so much fun! And I loved the physical world and was always questioning how things work. By the end of high school, I knew I wanted to be in engineering. Some people around me thought it was strange for a girl. After all, I was growing up in Algeria, which is very conservative. But fortunately, my parents were supportive and left the door open to me to do what I wanted to do."

Now Benbelkacem would like to see that door to engineering be open to many more women. Although there is still a lot of work to be done, she does see progress, with more women in the classroom. She describes the environment for women at Vaughn College today as "very supportive," citing sponsorship for students to attend Society of Women Engineers (SWE) workshops, conferences and career fairs that have resulted in female students receiving numerous paid internships and job offers. She applauds Vaughn College's outreach to young girls through Technology Day and other K-12 programs. "That early exposure is so important, to just open the door—not forcing things but encouraging their curiosity and showing they can do it."

"There are no pink or blue engineers!" stated Benbelkacem, with the conviction that comes from personal experience.

RAFACELY BRITO '21 | Student

Part of knowing where you want to go in life is embracing where you have been. For Rafacely Brito '21, a senior majoring in mechanical engineering at Vaughn College, accepting certain disadvantages as she grew up inspired her to encourage less fortunate students to follow their dreams.

For years, Vaughn College has been instrumental in preparing underserved middle school and high school students in the New York area for a brighter future. Through college readiness programs like Upward Bound and the Science and Technology Entry Program (STEP), the dream of receiving a college education, for low-income and disadvantaged students, is becoming a reality. This past February, Brito began working at Vaughn alongside a team that makes this happen. Here is her story.

At the age of 26, Brito believes that looking back on her childhood in Yonkers, New York has given her a greater appreciation of the path she is on today. Raised in a low-income family, Brito admits life was a bit challenging. Through it all, she always maintained excellent grades and excelled in math and science. As the time grew closer for Brito to attend high school, her parents decided to move the family to a better socio-economic area where she and her brother could receive a better education. "It was hard for me to leave my friends, but hindsight has shown me that my parents made the best move for us."

After high school, Brito began a modeling career—all while having the desire to attend college. A few years later, she enrolled at Bronx Community College, where she earned her associate degree in engineering science. After graduation, she had her heart set on enlisting in the United States Air Force. "I decided to take a cruise with my friends before enlisting. That is when my life took a turn. That's when I found Vaughn." While on the cruise, she received an email from her high school guidance counselor about a mechanical engineering scholarship at Vaughn College. "I was so excited to learn of the scholarship," Brito exclaimed. "The rest is history."

Brito embraced her engineering studies at Vaughn. She said having a curious mind made engineering the perfect fit for her career path. "I was always inquisitive," Brito said. "I remember driving over a bridge at a young age and wondering how the bridge was built." Although the course work is admittedly challenging, she said having professors who bring real-life industry experience makes all the difference.

This past February, Brito began her part-time job at Vaughn as an administrative assistant for the STEP program, where she handles student outreach and administrative tasks. Little did she know that a few weeks later, the COVID-19 outbreak would shut down the campus and the country. "At first, I thought the timing couldn't have been worse, but then I realized how the programs we offer are more important now than ever due to distance learning," she explained. Balancing her new job with distance learning as a full-time student is challenging, to say the least. Brito thanks Vaughn's outstanding faculty and staff, and believes the experience is better than she imagined it would be.

"I'm proud to be a part of this program," Brito said. "I believe we are making a difference in the lives of these students. The college readiness programs keep the students engaged, focused and off the streets. During these uncertain times, I can't think of a better way to spend the days."

Special Appeal for the STUDENT EMERGENCY ASSISTANCE FUND

SINCE THE PANDEMIC BEGAN, VAUGHN STUDENTS HAVE BEEN NEGATIVELY IMPACTED BY THIS ONGOING CRISIS. Requests have been received for help with expenses such as rent, utilities and, most troubling, for food and basic necessities. Typically, Vaughn students work while taking classes to assist with paying tuition or to contribute to their family household incomes. Unfortunately, the crisis is continuing to limit their work options or the work options of their parents. They need your help right now. Please contribute what you can and know that 100% of your donation will go directly to Vaughn students in need.

THERE ARE MANY WAYS TO GIVE

Visit https://bit.ly/SEFVC dedicated to this effort; TEXT EmergencyFund to 91999; or simply go to the Vaughn College website www.vaughn.edu/give-a-gift.

THANK YOU!

PUBLICATIONS

STUDENTS

2019 LACCEI International Engineering Conference

> "Autonomous Medication Distributor Through Implementation of Bresenham's Line Algorithm" by Brandon Duran '20, Sebastian Valencia '20, and Diego Villegas '20

>"Development of an Advanced Robotics Program for Middle and High School Vex Robotics Students" by Ryan Tang Dan '17 and Maharshi Patel '23

>"Modular Torque Wrench Extension with Heads-up Display" by Juan Castano '20, Juan Aguirre Rodrigues '20, andAtif Saeed '20

FACULTY

2019 ASEE Mid-Atlantic Conference, November 2019,

> "Integrating Linux and ROS in Mechatronics Engineering Education" by Dr. Shouling He

ASEE 2019 Conference, Tampa, Florida, June 2019

> "A STEM Training Program to Improve High School VEX Competition Outcomes" by Dr. Shouling He and Adjunct Professor Ryan Tang Dan

Voice of Hispanic Higher Education Magazine Summer 2020

> "The Impact of Vaughn's Grant-Supported STEM Activities" by Dr. Hossein Rahemi

International Journal of Impact Engineering, May 2019

> "Characterization of Adhesively Bonded Aluminum Plates Subjected to Shock-Wave Loading" by Dr. Douglas Jahnke (Vaughn College), Yiannis Andreopoulos (City College of New York), Feridun Delale (City College of New York), Robert E. Jensen (U.S. Army Research Laboratory), Daniel Shaffren (U.S. Army TARDEC), Salih Yildiz (City College of New York)

32nd National Training Aircraft Symposium (NTAS), March 2020

> "An Examination of Recent Female Graduates from a Collegiate Aviation Program and Their Decisions to Become Professional Pilots" by Deb Henneberry, Dr. Maxine Lubner and Dr. Pete Russo

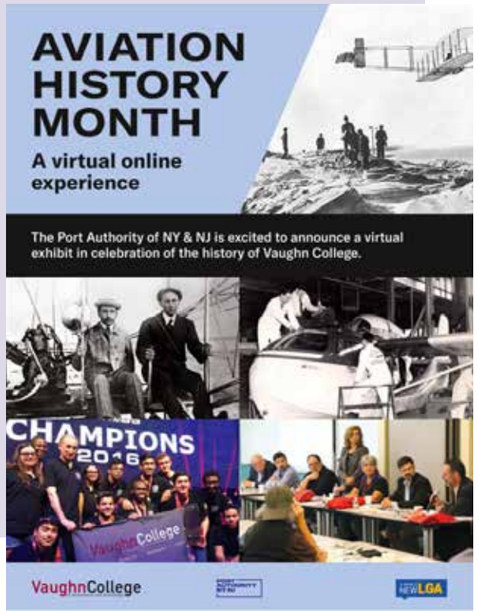
Supply Chain Brain Podcast, September 2020

> "How Is Supply Chain Management Being Taught Today?" by Dr. Peter Canellis

Aircargopedia, August 2020

> "Global Sourcing: Know When (and How) to Do It" by Dr. Peter Canellis

The Port Authority featured Vaughn College in an online virtual exhibit noting its history and accomplishments to celebrate Aviation History Month.



VAUGHN COLLEGE LAUNCHES NEW WEBSITE

An updated and redesigned Vaughn College website launched in time for the fall 2020 semester. Originally planned to be unveiled in spring 2020, the pandemic and switch to online learning pushed the launch date back as Vaughn navigated the new norm for the community.

The new design better reflects the institution's program offerings, improves navigation and provides a new look for prospective students interested in studying at the College. Studies have shown that a user-friendly website plays an enormous role in a student's decision to attend an institution, and the redesigned homepage provides a strong sense of what Vaughn has to offer. The design was based on feedback from students, an analysis of the most-visited pages and a shared vision for the College community.

"We continue to adapt the website as we reassess priorities for the Vaughn community now, and in the future," said Maureen Kiggins, assistant vice president of public affairs. "Our goal is to showcase all Vaughn has to offer to prospective students and provide ease of use for accessing relevant information for our current students."

VaughnCollege
of aeronautics and technology
86-01 23rd Avenue
Flushing, New York 11369

In Memoriam

1935-2020

ANNE CRUDGE, a freelance journalist, joined Vaughn College's board of trustees in 1990 and served as board secretary from October 1992 through the fall of 2016. Crudge also served on various student affairs and academic policy committees. In 2016, she assumed emeritus status, still enabling her to continue her positive influence on the College.

Crudge's interest in Vaughn stemmed from its ability to make a college degree possible for many first-generation Americans and first-generation college students. Vernon Crudge, her husband, was an aviation pioneer, and during World War II, as a member of the Royal Air Force Transport Command, he became the North America general manager for British Overseas Airways. Later he became an adviser to Boeing and Rolls-Royce and had a long association with Vaughn College.

Above all else, Crudge's long-term commitment to the College's board was a direct reflection of her belief in the abilities of Vaughn students and the attainable opportunities available to them after receiving a Vaughn education.

When reflecting on her memory, President Dr. Sharon B. DeVivo expressed, "The day before she passed away she emailed me to make sure that she had contributed to the Student Emergency Assistance Fund. When I found out that she had died the very next day, it just reinforced what I already knew about Anne—she loved Vaughn students and was always committed to their success right until the end of her life."

ANNE CRUDGE WILL BE GREATLY MISSED BY THE VAUGHN COMMUNITY.