

## A Different Kind of High School



West Michigan entrepreneur Dick DeVos launched West Michigan Aviation Academy in 2010 with 73 students, a small repurposed building, and a compelling vision. He wanted to build an excellent high school of choice that would engage students in the aviation field. Today, we're fulfilling that dream. Over 130 of our graduates have earned a private pilot license. Countless more have cultivated an interest in aviation design, maintenance or operations.

We have also broadened our scope to emphasize the STEM fields, including engineering and robotics. WMAA students are prepared to pursue careers in fields with high demand, stability, and excellent long-term earning potential.

Our students embrace our culture, thrive on the challenges, and develop professional skills that lead to careers.

# School opened Purchased first plane; introduced aerospace engineering curriculum Purchased first plane; introduced a private pilot license curriculum 2010 School opened Purchased first plane; introduced aerospace engineering curriculum 2013/ 3 students earned a private pilot license curriculum 2016/ 2017

## **66** The higher your altitude,

the broader your horizon.

Dick DeVos, WMAA Founder

"I started this school believing that students would elevate their ambitions if we can help them see a broader horizon. That philosophy drives us to offer experiences that make each student's world a bigger place. This approach continues to pay off as students explore new opportunities, discovering talent and passion they didn't know they possessed."

## **66** It is our job to make learning real.

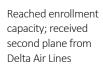
Nicole Gasper, CEO



"We challenge ourselves to create customized learning experiences so students can explore their interests. Strong STEM programs and our aviation focus continue to lead the way in that effort. We make those experiences richer through our industry partnerships and hands-on learning. We want students to integrate their studies in a practical, lab-like environment that inspires learning."

#### **Recent Awards**

- Distinguished Flight School (AOPA, 2019)
- #2 Charter High School in Michigan (Niche, 2021)
- #27 Best High School in Michigan (U.S. News & World Report, 2021)
- Ranked #1 Best Charter High Schools in Michigan (Niche, 2022)





Foundation was formed; launched Fliaht Plan capital campaign



Added Build A Plane and UAS to aviation curriculum: identified as GR Promise Zone school



100th student earned a private pilot license



Opened Flight Training Center: received third plane from the Secchia

## What Makes WMAA Different?

WMAA is an academically rigorous public charter high school with a focus on aviation and STEM. Our vision is to provide an innovative, professional and welcoming environment that inspires growth and ignites a passion for lifelong learning.







#### **Building Career Pathways**

Active, hands-on, skill-based learning prepares students for high-growth, high-demand fields in the real world.

- Robust curriculum in science, engineering, mathematics, robotics, and aviation
- Active partnerships with Kent Career Technical Center and local businesses
- Focus on interdisciplinary and real-world project learning
- Oppportunity to earn a private pilot license or commercial drone license



#### **Building Character**

Strong academic requirements and high behavioral standards create a culture that promotes responsibility, respect, and self-motivation.

- "No Ds" students must achieve 70% to pass
- Professional attire for staff and uniforms for students
- Intentional culture that expects students to behave as ladies and gentlemen (ex: making eye contact, opening doors, shaking
- 100 hours of community service required for each student



#### **Building Access & Opportunity**

Intentional promotion, open admission, and a suite of supportive services cultivate a diverse student body.

- No admission requirements WMAA is open to any Michigan student
- Students come from roughly 50 surrounding school districts
- Approximately 15 native languages other than English are spoken in our students' homes
- Goal-oriented counseling to help students prepare for a career pathway

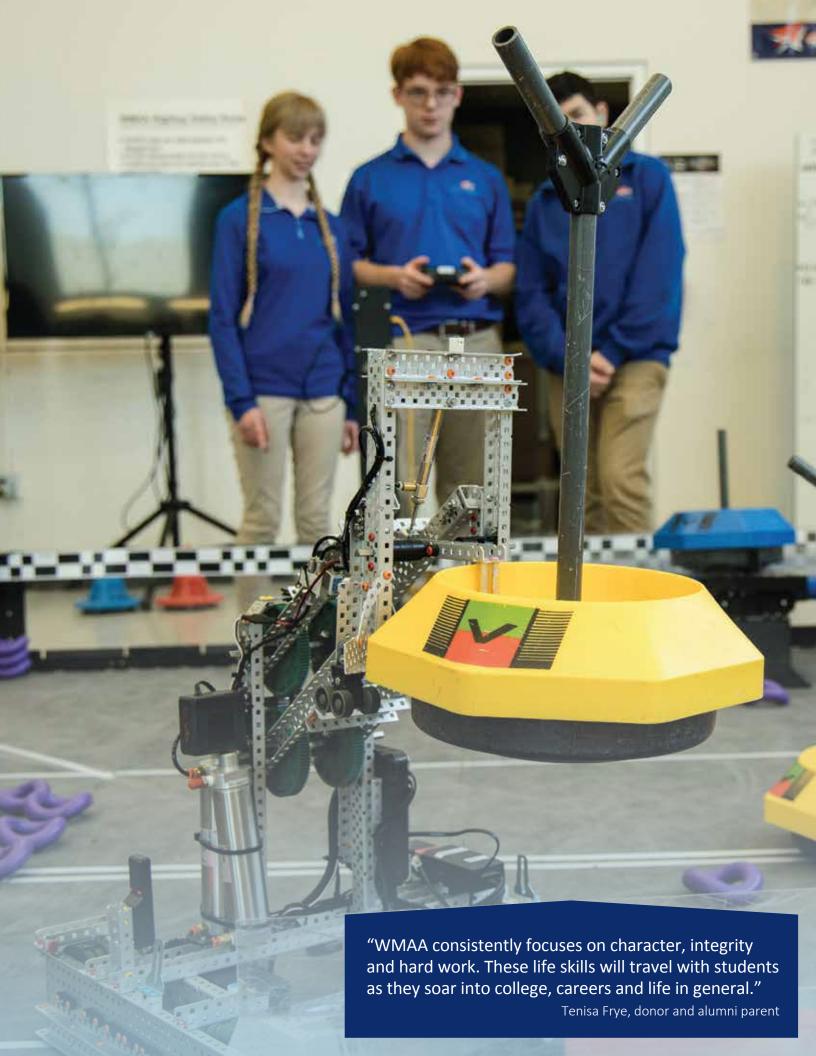


**Typical** 

**Directions** 



- **53-60**% 4-yr College/University
- **15-19**% 2-yr College/University
- **12-13**% Workforce
- **5-12**% Military Service
- 3-4% Other Plans



### **Aviation Focus**

According to leading experts, the commercial pilot shortage in the United States will reach 15,000 by 2026. Similarly, aerospace companies are experiencing a shortage in skilled trade positions and engineering. The aviation industry needs to fill its pipeline, and WMAA is part of the solution.

We create intentional opportunities for students to experience the thrill of aviation firsthand. Through incentive flights, curriculum courses and hands-on projects, WMAA students can explore opportunities to engineer, build, maintain and fly a plane.

WMAA is one of only a few high schools in the nation where a student can earn a private pilot license as part of the high school curriculum.

Approximately 15-20 of our students earn their private pilot license each year.

**130** + student graduates with private pilot license

#### **Extracurricular Opportunities**









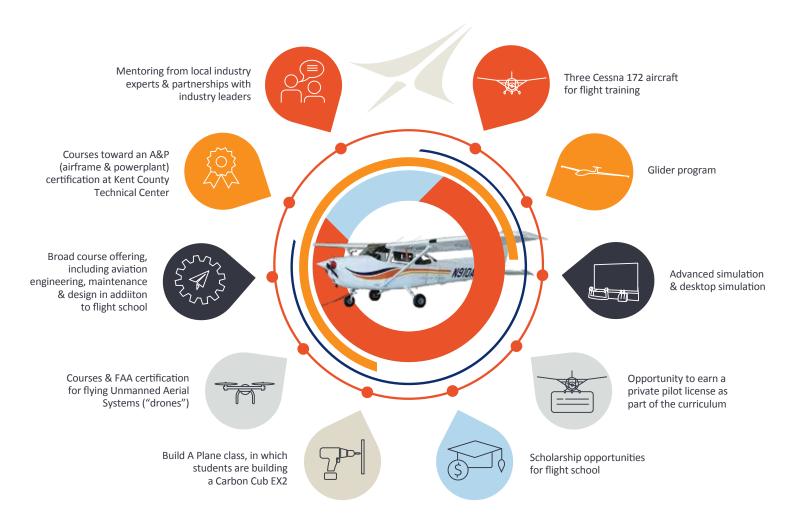
In 2021, we opened a new Flight
Training Center across from our main
building. This extension of our
campus provides hangar space to
support flight operations, classroom
space, simulation labs, and an open
construction bay for projects and
courses such as Build a Plane or
Unmanned Aerial Systems. Our
students also interact with Mayday
Avionics, an industry partner that
leases space from us.





#### A Wealth of Resources

Thanks to donor support, WMAA students have a full spectrum of resources for exploring aviation opportunities.







## **Complementary STEM Emphasis**

We have developed a hands-on methodology for intellectually stimulating, content-rich learning. Much of that focus was initially centered on aviation because we knew there was a talent shortage. A bit to our surprise, we have found that students crave this kind of experience in other under-supplied fields, such as biomedical engineering and computer science. We have also found that the business community values and wants to invest in a school that helps fill the essential skills pipeline.

Over the years, we have recruited highly qualified faculty, many of whom have invaluable professional experience in their fields. Our STEM course offering has exploded.

STEM opportunities do three significant things for students.



#### **Provide Exposure**

All of our students are required to take two engineering courses.



#### **Fuel Enthusiasm**

Students thrive in a school that expands their intellectual and vocational horizons. Every new class or opportunity fills up immediately.



#### **Create Focus**

WMAA students can explore a vast variety of STEM-related courses during their high school careers. This broad exposure costs them nothing, and helps them narrow down their area of focus for post-secondary education investments.



#### **Some of Our STEM Resources**

- ✓ VEX robotics teams
- Access to 3D printers, laser cutter and CNC machines
- A robust and varied STEM course offering
- The first high school-level biomedical engineering class in the county
- Advanced computer science
- A fully-outfitted engineering fabrication lab
- Mentoring from local industry experts

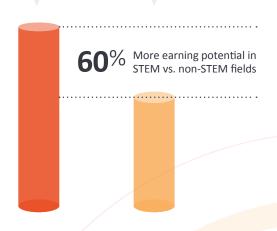




#### **Median Full-Time Annual Earning Potential**

## \$77,400

Non-STEM **\$46,900** 



Pew Research Center. April 14, 2021."6 facts about America's STEM workforce and those training for it."

#### **Employment Potential by 2025 (U.S.)**

#### **STEM Job Opportunities**

**3.5** M

**Projected Employees** 

**1.5** M

**2** M Unfilled jobs in these fields

Reed, Cheryl. July 22, 2021. "How you can play a local role in correcting a global STEM worker shortage." www.techpoint.org



## 66 I've learned that project-based approaches stick better.

Andrew Abissi, Engineering Teacher

"I look for ways to get students involved in the community through projects. We've done things like a prosthetic foot for a pet chicken, and a police car "costume" for a little boy's wheelchair. Project-based approaches stick better, because the information is relevant and students form an emotional connection to the outcome. They also build critical skills they will need later. I know this from personal experience, because I discovered a lot of knowledge gaps when I started college. If I had used CAD software or learned to read a circuit diagram in high school, my college courses would have been a lot easier. Projects give every student a chance to grow and shine."

## 66 I couldn't fathom that aviation was a possibility.

Taylor Hall, WMAA Alumna

"I originally came to WMAA because I wanted to be an engineer. Then I took a discovery flight my freshman year and fell in love with flying. Once I realized that becoming a pilot was attainable, I put 110% into it. Now I'm attending college and working to become a flight instructor. Ultimately, I would like to get into business aviation. Thanks to my WMAA education, I came into flying with a professionalism that many of my fellow students do not possess. I'm a lot more prepared, and I'm grateful."



"It makes sense that the commitment to excellence and high standards that are hallmarks of the aviation community also create an ideal environment for education, no matter what the area of interest."



Read more student stories on our website.



### The WMAA Foundation

As a public charter school, WMAA receives a per-pupil stipend from the State of Michigan. This stipend covers the traditional courses. However, WMAA provides educational opportunities above and beyond what can be found in other high schools. Those opportunities require an additional investment of roughly \$1,500-\$2,000 per student annually.

The West Michigan Aviation Academy Foundation is a 501(c)(3) organization. The Foundation's role is to cultivate donors and private philanthropy, raising the additional money needed to fund priorities set by WMAA's Board of Directors.





Grand Valley State University is the charter authorizer for WMAA. As part of this arrangement, GVSU leverages the resources of the university and provides scholarships to staff and students for continuing education.