



## Olympic High School—Advanced Manufacturing and Engineering

Charlotte-Mecklenburg School District,  
Charlotte, North Carolina

Superintendent:  
Ernest Winston

District Enrollment:  
146,000

### VIDEO LINK



AASA Charlotte Youth Apprenticeships



This is an award-winning career pathway academy designed to teach students about manufacturing processes, product design, robotics, and automation. Its course sequence includes an Introduction to Engineering Design, Principles of Engineering, Computer Integrated Manufacturing, and Engineering Design and Development. On-site experiences involve training and career development at a range of Advanced Manufacturing and Engineering companies, including Siemens, Chiron, Hyde Park Partners, and Yaeger Industries. In addition to powerful preparation for a career in Advanced Manufacturing and Engineering, successful students receive CPCC Articulated Credit and college credit via Central Piedmont Community College. The design principles of the CMS CTE program include the following:

**Discover:** CMS students to begin to explore their career interests.

**Unleash:** CMS high school students begin have extensive opportunities to receive industry-recognized certifications, earn credits toward post-secondary degrees, or begin their careers after graduation.

**Soar:** This phase involves a commitment to ensuring that CMS students are prepared for higher-level courses in college as well as a wide range of high-wage, high-skill, and high-demand careers.

### Benefits for Students

- ▶ Students participating in the district's apprenticeship program derive the following benefits:
- ▶ Attainment of OSHA-recognized certification/credential
- ▶ Debt-free college credits
- ▶ Skill sets that will give them a competitive edge as they enter the workforce, including critical thinking and problem-solving skills; creativity and innovation; teambuilding and teamwork; and social-emotional development, including a range of non-cognitive abilities.
- ▶ Transformed students' view of themselves, their future career pathways, and the relevance of post-secondary education.
- ▶ Strong connections between learning in school and learning on the job
- ▶ Mentorship and an extended professional network

### Benefits for Education and Industry

- ▶ Curriculum and the teaching and learning processes are aligned, cohesive and intentional.
- ▶ Aligned classroom and on-the-job learning experiences
- ▶ Companies experience economic gains resulting from helping to develop and hire local talent, thus expanding the pool of qualified and technically proficient young people entering the workforce.
- ▶ Offers meaningful, personalized, and technology-driven teaching-learning experiences for students
- ▶ Shared decision-making between businesses and schools
- ▶ Employer needs and demands are addressed.
- ▶ There is a positive return-on-investment on the value of apprentices' work.

## The Apprenticeship Ecosystem

The apprenticeship as an ecosystem is a recurrent metaphor used by many of the leaders we interviewed. Specifically, they suggest that the apprenticeship represents an interdependent set of human resources, support structures, policies and practices, and legal requirements necessary for sustaining the success and viability of individual apprentices as well as the sustainability and scalability of the apprenticeship program. The apprenticeship ecosystem evident in the program involves multiple stakeholder groups, cross-functional teaming, and both internal and external oversight. Quality control is a powerful tool used to ensure that curriculum is updated to align with changing pathway standards, professional learning (both in-school and on-site) is recurrent and consistent. There is also continual monitoring of student progress, including feedback from district, school-based, and on-site mentors, and leaders.

## Programs

The school district's Career and Technical Education (CTE) programs are extensive and reinforce students' early career discovery and skill development in a wide variety of

- ▶ Olympic High School offers six career pathway programs:
- ▶ Advanced Manufacturing and Engineering
- ▶ Architecture and Engineering
- ▶ Biomedical Exploration
- ▶ Carpentry
- ▶ Software Development
- ▶ Business Management
- ▶ Culinary Arts and Hospitality

## Leadership

### Clayton Wilcox, former Superintendent

*The district's youth apprenticeship program is powerful in a number of ways. But what I would say to any leader across the country, if you want to give your kids the opportunity to have mobility in terms of their future, to move beyond their current circumstance, the apprenticeship program is absolutely the way to go. Give your kids the tools to be successful now, so they can apply those tools, and then perhaps take their career to a place they've never even dreamed it would go.*

### Michael Raelon, Program Coordinator:

*The greatest benefit I think for kids is relevancy and authenticity with what they're doing. They're getting to connect the dots between what's going on in classrooms and its relevancy in the real world. Plus, you know, within our experience, we believe in making kids who are career and college ready as most of them don't have any background or context to understand what jobs are even out there today.*

### Principal Erik Olejarczyk:

*(Students) are getting paid while they're in class, they're getting their tuition paid for. They're going to come out of high school making \$40,000 to \$50,000 a year with tremendous opportunity for advancement. They're going to come out debt free. I think again for the local economy and the local community, we see a mutualistic relationship. Our goal is to help our students be successful. We're creating children that are employable or that even if they go off to college, they have the opportunity to not be in that 40%, or not being that 60% that don't get a degree.*