

2015-2016 Columbus Foundation Overview of The Metro Schools

IMPACT STATEMENT

2015 ACCOMPLISHMENTS

- Metro was recognized by the White House for its efforts and innovations in STEM Education.
- More than 80 groups of world leaders representing business, education, and commerce toured Metro and learned about our STEM school model. Visiting institutions have included University of Chicago, Purdue University, US Department of Education and the National Academy of Engineering.
- 99% of our senior class graduated within four years and were accepted into college.
- Most students spend their junior and/or senior years in college classes at The Ohio State University. Last year, over 2,070 cumulative college credits were earned with an average college GPA of 3.2.
- Metro schools have incorporated FIRST Robotics at every level.
- Metro Middle School launched a Girls' Coding Club with the support of a grant from the Women's Fund of Central Ohio.
- The inaugural class of Metro Institute of Technology included 71 freshmen who represent 16 central Ohio school districts.
- Metro Institute of Technology students placed 2nd in the inaugural CBusStudentHack event, which is sponsored by Franklin University and AT&T.
- A Metro Institute of Technology freshman won first place in the senior division (9th thru 12th grade) of the Martin Luther King Oratorical contest, sponsored by the City of Columbus.

GOALS

- We will continue to transform the lives of all of our students by preparing them for the jobs of the future and setting them up for acceptance and success in college. Our students will graduate from high school, be college ready, earn stackable credentials, and be qualified to obtain middle level skilled jobs upon completion of high school. Metro students will carry the confidence to pursue, persist, and complete a BS, BA, or an advanced degree.

- We will continue to serve and mentor populations traditionally underrepresented in STEM fields in the hope of expanding their future career opportunities.
- We will increase the number of students engaged in internships so that 100% of our seniors and over 50% of our juniors receive workforce experience.
- We will increase the number of students engaged in Early College experiences to 100 and the number of capstone and gateway research projects to 600.
- Metro will continue to expand its presence as a national thought leader in the field of STEM education.

BACKGROUND STATEMENT

The Metro Schools, comprised of Metro Early College High School, Metro Early College Middle School, and Metro Institute of Technology, provide an intellectually vibrant, Ohio public STEM school education open accessible to students in grades 6-12. Metro is an early college program focused on problem-based learning with an emphasis on science, technology, engineering, and math (STEM).

Metro students engage in a personally relevant and academically rigorous curriculum, which allows them to complete their coursework at an accelerated pace and access professional internships and college coursework before graduation.

Metro was developed out of a partnership between The Ohio State University, Battelle Memorial Institute, and the Educational Council. Metro serves as a platform school for the Ohio STEM Learning Network and a model for Race to the Top programs in New York, North Carolina, Ohio, Tennessee and Texas.

STATEMENT FROM MRS. MEKA PACE, EXECUTIVE DIRECTOR

As the Executive Director of Metro Schools, it is my responsibility to provide a personalized, integrated, and rigorous STEM education to a diverse group of students. Metro serves to level the playing field for all students regardless of their zip code. As students progress through a mastery-based curriculum, they have opportunities to accelerate and remediate coursework until the standard of mastery is met.

With highly trained teachers who share common beliefs, we are teaching habits that prepare students for college and their careers thereafter. With technology, real-world connections, and innovative practices, education is made relevant and accessible to all. Our goal is to prepare students with the knowledge, skills, and habits to persist until they reach their goals.

STATEMENT FROM DAVID BURNS, GOVERNING BOARD CHAIR

As the Director of Battelle's STEM Innovation Networks and Chair of Metro's Governing Board, I can say without a doubt that Metro Early College High School (Metro) is a world-class model for education. Metro Early College High School is Ohio's first school focused on STEM (science, technology, engineering, and math). Metro is a free, public, early college high school that is open to any Ohio student—they are non-

selective. Metro is committed to the idea that every student—regardless of past academic performance—deserves to graduate from high school ready for college and career.

Foundational to the work at Metro is a dedication to their Habits of Heart and Mind. Not only does Metro challenge their students to stretch their minds, they also challenge their students to stretch their spirits. Each member of the Metro community strives to be an effective communicator, an inquiring learner, an active and responsible decision maker, an effective collaborator, a critical thinker, and an engaged learner.

On average, Metro students earn more than one year of college credit before high school graduation; many students graduate from Metro with two or more years of college completed. All Metro students complete an internship and 280 hours of service learning as part of their preparation for college and career success. As a result, every year since their inaugural graduating class of 2010, every Metro senior has graduated from high school and has been accepted to college.

Programs

Metro Schools

Metro Schools are comprised of Metro Early College High School, Metro Early College Middle School, and Metro Institute of Technology. Together we serve nearly 800 students. Our vision is to provide a small, intellectually vibrant learning community designed to serve students who want a personalized learning experience that prepares them for a connected world where math, science and technology are vitally important. Our students practice the art of acting as Effective Communicators, Inquiring Learners, Active and Responsible Decision Makers, Effective Collaborators, Critical Thinkers, and Engaged Learners. Our holistic approach to education focuses on cognitive, social, emotional and physical development through experiential learning, service learning and family and community support. All Metro students engage in a personally relevant and academically rigorous curriculum within a safe and trusting environment with the ultimate goal of graduating prepared for the jobs of the future and college success.

Metro Design Challenges

Metro Design Challenges are an opportunity for Metro students to work on real-world challenges in a team environment. Each semester, Metro's student teams are asked to address real-world, relevant problems that pertain to one of the subjects they are studying. Design Challenges range from constructing a new product and designing a future city based on energy efficiency to creating a business plan for Columbus's North Market. Design Challenges help Metro students gain practical, hands-on, real-life experience in addressing problems and seeking solutions.

Metro Capstone Research Projects

Metro Capstone Research Experiences introduce students to rigorous and relevant research in a field of interest. Possible fields to explore include engineering, medicine, government, and agriculture. In addition to honing their research skills, Capstone projects help students develop professional skills such as resume writing, proper dress,

and business etiquette. The skills learned set Metro students up for success in landing their first job, whether it be directly out of high school or after college.

Metro Early College Experiences

Metro Early College Experiences provide rigorous early-college programmatic options in various fields during the junior and senior years of high school. These year-long, early college STEM programs engage, challenge, and develop students as emerging professionals through exposure to real-world work in their specific field. Students complete a blend of high school courses, college coursework, internships and capstone research projects. Our programs include: Bodies (bio-medical), Design (math and engineering), Digital (media and communications), Growth (agriculture and biology), Mosaic (humanities), and Energy (government policy and environmental science).

Metro Institute of Technology Pathways

Students at Metro Institute of Technology are pushed personally and academically to complete their high school diploma, job certifications and an associate's degree in five years. Students pursue a pathway in one of the following fields: computer science, medical laboratory technology and informatics, or engineering technology. Pathways include college coursework and internship experiences to provide students with hands-on training and experiences that will help them stand out to employers.

Metro FIRST Robotics Competition Teams

Teams of students compete annually in the FIRST Robotics Competition--an international high school robotics competition organized by FIRST (*For Inspiration and Recognition of Science and Technology*). Mentors and high school students collaborate in teams to create a functional robot in six weeks. Under strict rules and with limited resources and time allotments, these student-driven teams raise funds, design a team brand, and build and program robots to perform a designated task. Metro students can engage in FIRST Robotics during each level of their academic career: FIRST Lego League (middle school); FIRST Robotics Team (high school) and FIRST Tech Challenge (high school).

Parent, Teacher, student and alumni engagement programs:

Throughout the school year nearly 1500 parents, 800 students and 500 Metro alumni wish that they could participate in more Metro programming and events. 25 % of our students come from low-income families that qualify for reduced or free lunch. Consider funding efforts that enhance the Metro experience for entire families, such as the Fall Festival and Metro's International dinner: The "Taste of Metro," J Term celebration, clubs, PROM, Metro spring games and graduation all would greatly benefit from additional funds. Funds also support educational field trips and class trips.