

AOE National Sponsors

National Academy Foundation - New York, NY

The mission of the National Academy Foundation (NAF) is to sustain a national network of career academies to support the development of America's youth toward personal and professional success in high school, in higher education, and throughout their careers.

More than 90% of NAF Academy students graduate from high school - compared to 50% in the urban areas where most NAF Academies exist; four out of five graduates pursue college or other post-secondary education.

NAF Academies function as dynamic partnerships and collaborations between schools, teachers, administrators, business volunteers, and an active Advisory Board led by industry professionals. Some Academies operate as smaller schools within larger public high schools; others function as stand-alone public schools.

Project Lead the Way (PTLW) - Clifton Park, NY

PTLW is a national not for profit organization established to help schools give students the knowledge they need to excel in high-tech fields intergrading engineering. PTLW's curriculum have proven the PTLW students become the kind of prepared, competent, high-tech employees U.S. Industry needs to stay competitive in the global market.

National Action Council for Minorities in Engineering (NACME) - White Plains, NY

"To provide leadership and support for the national effort to increase the representation of successful African American, American Indian and Latino Women and men in engineering and technology, math- and science-based careers". Founded in 1974, NACME has supported more than 22,000 students with more than \$114million in scholarships at 160 colleges and universities.

The Career & Technical Education in CMS clearly recognizes the need for engineers and career technology. This program is a partnership with industry, the NAF, PTLW, NACME, CMS, parents and most of all our students. Thank you for your support.

PLTW Academy of Engineering PLTW Courses:

- 9th Introduction to Engineering Design—Biology
- 10th Principles of Engineering—Physics
- 11th Civil Engineering and Architecture—
AP Environmental Science
- 12th Digital Electronics

CMS Academy of Engineering Programs

- ◇ East Mecklenburg High School
- ◇ Hopewell High School
- ◇ Independence High School
- ◇ Mallard Creek High School
- ◇ Philip O. Berry High School
- ◇ Vance High School

East Mecklenburg High School

Penny Ratchford

Academy of Engineering Director

6800 Monroe Road

Charlotte, NC 28212

Ph: 980-343-6430

Fax: 980-343-6437

E-mail: penny.ratchfordf@cms.k12.nc.us



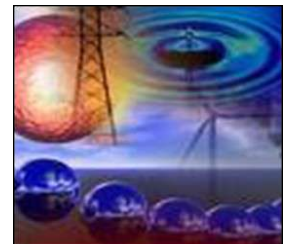
In compliance with federal law, Charlotte-Mecklenburg Schools administers all education programs, employment activities and admissions without discrimination against any person on the basis of gender, race, color, religion, national origin, age or disability.

Reach Further. Global competitiveness starts here.

The "E" in STEM
Using Science, Math and
Technology in the Real
World Of Engineering.



**East Mecklenburg HS
Partnership with
Business**



East Mecklenburg High School Academy of Engineering

East Mecklenburg is one of five High Schools in North Carolina that qualified for and launched an Academy of Engineering program. Over 20 Students were accepted into the program which began in the Fall of 2011. The program has been carefully designed to introduce students to a wide variety of engineering principles PLTW classes for the program including Introduction of Engineering Design, Principles of Engineering, Civil Engineering & Architecture, Biotechnical Engineering, and Engineering Design and Development are four foundation classes.



Engineers touch nearly everything we use. They evaluate aspects such as product safety, functional-

Curriculum teachers have received special training to support the curriculum. A primary goal is to expose the students to what engineers do in a focused effort designed to guide students toward technology careers.

A 23 person Advisory Board, consisting of 80% from local industry including engineers and business leaders, and 20% from East Mecklenburg & other CMS staff, guide, support and mentor the students and teachers.

BUSINESS HELP US SECURE OUR FUTURE!

The National Academy Foundation (NAF) has partnered with Project Lead the Way (PLTW) and the National Action Council for Minorities in Engineering (NACME) to help create the formula for this program. Nationally the program's recognized sponsors that include: Xerox, Motorola, Bill & Melinda Gates Foundation and Weill Family Foundation.

The Advisory Board is requesting support from local business to become an industry partner or sponsor, to support in small ways, to help make this program a unique learning experience for young eager minds. Support can come in a number of ways and a few ideas include:

- ◇ Donate Project Materials
- ◇ Future Facility Tour for Students in the AOE Program
- ◇ Share an Engineer to mentor, or be a guest speaker
- ◇ Financial Support for small classroom projects
- ◇ Arrange a field trip with industry friends or contacts
- ◇ Equipment donation, software, product samples
- ◇ Provide Engineering reference or presentation material
- ◇ Plant videos, virtual tours, business capability overview
- ◇ Sponsor an intern (rising Senior) - workplace experience

In return, your company will be recognized during activities, on printed materials and school web sites, acknowledging support for the program, and shared with the parents of the AOE Students.

Thank you for your consideration and support.

Everything we see and use has been designed, evaluated, tested, and/or produced on equipment developed by engineers!

Engineering careers and more.....not less.....

Specially Trained East Mecklenburg Teachers and the Advisory Board prepared for this launch for more than a year. We feel confident this will become a model for additional programs and in other disciplines in NC. When industry mentors partner with students, the community will benefit. Together we will secure the future of our students' career choices. Career path exposure is one aspect of this program. Teachers have direct access to industry mentors for special presentations, project support, industry exposure, internship programs and more. With such a program, a better prepared, informed student will provide for a qualified homegrown workforce. Some Universities already have the next level of development programs. One such related course - Senior Project - involves sponsor companies and engineering mentors with students. These are the most popular and provide real world experience for the student. This exposure will also be part of the AOE experience beginning as freshman to their senior year.

We certainly appreciate your support with the Academy of Engineering program. We can reassure the use of such support materials, funds, and resources will be monitored and properly dispersed with board approval.

Should you have any questions, please feel free to contact us.

Sincerely

East Mecklenburg AOE Advisory Board

Academy of Engineering

East Mecklenburg High School — CMS
Academy of Engineering Director: Penny Ratchford
6800 Monroe Rd.
Charlotte, NC 28212
Ph: 980-343-6430
Fax: 980-343-6437
E-mail: penny.ratchford@cms.k12.nc.us