



Pre-Engineering Program: Collaboration between the University of Maryland MRSEC and Charles Herbert Flowers High School, PGCPS

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The Maryland MRSEC has formed a six-year partnership with Charles Herbert Flowers High School Project Lead the Way (PLTW) to implement its pre-engineering course sequence. PLTW is a pre-engineering program that introduces students to the scope, rigor, and discipline of engineering and engineering technology prior to entering college. The goals of the program are to increase the number of young people who pursue engineering and engineering technology; provide equitable and inclusive opportunities for all academically qualified students. The Maryland MRSEC is providing students with an exciting curriculum series of activities including inquiry-based lessons and university-based tours and instruction days. Maryland MRSEC 2005-2006 activities include:

High School Classroom Modules:

- Materials Categories and Characteristics
- Materials Properties and Testing
- Production Processes

U of Maryland Tours and Activities:

- Annealing Metal Activity
- Mechanical Testing Laboratory Tour
- Thermo-set (Composites Resistivity)
- TEM /Grain Etching Activity and Tour

Preparatory/Enhancement Summer Camps:

- Electronics: Real-World Applications
- Engineering: Programming (Robo Lab)

