



2009 Summer Engineering & Medical Careers Workshops

Partnered with: NDEP, UMCP, MESA, NSWC, ONR and SNAME*

*National Defense Education Program, University of Maryland College Park, Mathematics Engineering Science Achievement, Naval Surface Warfare Center, Office of Naval Research, Society of Naval Architects and Marine Engineers

(Location - John F. Kennedy High School 1901 Randolph Rd., Silver Spring, MD 20902)

One-week, half-day workshops: July 13-17, 2009 & July 20-24

Tuition - \$50.00 (Scholarships available)

COURSE TITLES:

SEATS AVAILABLE:

- July 13-17, 2009 (First Session) — July 20-24, 2009 (Second Session) 20 students each session

 - **Naval Architecture and Engineering (for Students new to Sea Perch)**
Students will use engineering concepts to build and test a submersible ROV (Remotely Operated Vehicle) called Sea Perch. Students will have the opportunity to test the ROV
- July 13-17, 2009 (First Session) — July 20-24, 2009 (Second Session)

 - **Medical Careers** 20 students each session
Students will explore various medical careers using hands-on activities in class such as measuring blood pressure, pulse and respiration
- July 20-24, 2009 (Second Session Only)

 - **Aeronautical and Electrical Engineering** 25 students
Students will design and construct airplanes to lift and transport maximum mass. This activity will focus on airfoil wing design, transportation and aerodynamics. They will also construct simple audio amplifiers

Two-week, half-day workshops: July 13-24

Tuition - \$100.00 (Scholarships available)

- **Up, Up and Away** 25 students
This course is sponsored by MESA (Mathematics, Engineering, and Science Achievement) where students will explore Newton's Law of Motion through hot-air balloons, rockets, and bridge building
- **Computer Engineering** 20 students
Students will learn about computer programs for the 64-processor desktop-of-the-future computer built at UMCP and will explore relevant Computer Science and Mathematics concepts
- **Lego Mindstorms** 25 students
Using a space theme, students will work in groups to learn about: gear ratios, locomotion and energy as they construct robots with the Lego Mindstorms NXT Robotics kit. They will design, build, program and control their robots while putting them through a series of real world design challenges.

All workshops feature hands-on experiments. Field trips require parental permission. Priority registration/selection will occur for eligible** students from groups that have been underserved in these careers fields in the past. Only students entering grades 6, 7, or 8 (School Year-2009-2010) are eligible. Summer workshops are contingent upon budget approval.

TRANSPORTATION IS NOT PROVIDED.

Workshops will be held at John F. Kennedy High School 8:30 am-12:30 pm.

****Students at a DCC Middle School, Francis Scott Key MS and Kingsview MS receive first priority.**

For information, call 301-592-2067-301-592-2040 — Si necesita ayuda en español acerca del taller este verano, favor llamar al 301-592-2055

-----**registration form**----- **cut here and submit with payment**-----

Please complete and return the application below along with a check payable to MCPS:

DCCAPS/Summer Workshop, 11721 Kemp Mill Road, Silver Spring, MD 20902

All applications must be received by 4:30 p.m., June 19, 2009

Please print
 Student's Name _____ Required
 MCPS Student ID Number _____ Gender M__ F__

Home (Cell) Phone _____ Address _____

Current Grade of Student _____ Middle School Attending 2009-2010 School Year _____

Depending on the number of applicants registration may be limited to only one workshop.

One Week Session 7/13 to 7/17	One Week Session 7/20 to 7/24	Two Week Session 7/13 to 7/24
<input type="checkbox"/> Naval Architecture and Engineering	<input type="checkbox"/> Naval Architecture and Engineering	<input type="checkbox"/> Up Up and Away
<input type="checkbox"/> Medical Careers	<input type="checkbox"/> Medical Careers	<input type="checkbox"/> Computer Engineering
	<input type="checkbox"/> Aeronautical and Electrical Engineering	<input type="checkbox"/> Lego Mindstorms

Financial assistance for tuition is available, please check if needed. _____

You will be required to submit documentation to receive financial assistance before registration is complete.

Please include **\$50.00 check for one-week session** or **\$100.00 check for the two-week session**, payable to MCPS – No payments in cash.

Parent/Guardian Signature _____ Parent/Guardian Printed Name _____ Date _____