



Looking For Students!

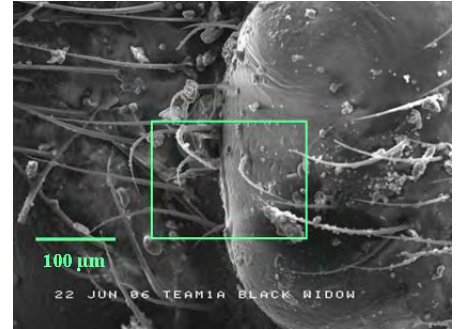
The Army Educational Outreach Program is looking for students to participate in the Gains in the Education of Mathematics and Science (GEMS) at APG <http://www.usaeop.com/programs/GEMS/ARL.html>

GEMS is an in-depth, professional science experience where a diverse group of middle and high school students do hands-on experiments in a government lab with Army Scientists & Engineers for 1 week at the US Army Research Laboratory (ARL) on Aberdeen Proving Grounds. The goals of the program are to motivate students in their study of math and science and to inspire them to consider careers in those fields. GEMS is for students who think that they might be interested in the pursuit of science as a career, but maybe need a more in-depth experience to satisfy their natural curiosity of what 'working in a real lab' is like.

2009 Program Dates:

Week #1: June 22-26
Week #2: June 6-10
Week #3: July 20-24
Week #4: August 3-7

The GEMS Program consists of a 3-year cycle. In the 2009 GEMS Program, students will be in 'Cycle A'. Hands-on laboratory experiences will likely include, but not be limited to: studies of polymer science and learning basic polymer properties (such as viscosity, strength, and water absorption), making basic crosslinked polymers (including polyvinyl alcohols) and linear polymer (such as nylons), adhesion experiments, robotics build & test setup, fuel cells, and various instrumentation techniques such as Instron, ESEM, and FTIR.



Picture from GEMS - 2006 (Cycle A): Students worked on the Scanning Electron Microscope and learned how to do reports. The micrograph is a 100µm picture of one of the eyes of a black widow spider.

How to Apply

More information about the GEMS program is available on-line at: <http://www.usaeop.com/programs/GEMS/>

- Student applications for the GEMS program must be submitted on-line from February 1 through March 15, 2009 at: <https://usaeop.com/Application/student1.aspx>.
- Students should make sure that they apply for the GEMS Student Program and that the site they select is APG!
- Students age 12 and up will be considered for participation (entering 7th through 10th grade fall 2009). Students who are in 11th and 12th grades can apply if they have NEVER previously participated in GEMS.
- Previous participation does not guarantee a slot in this year's program. IF selected, early submission may improve a student's chances of being enrolled in the specific program week that they desire.
- Program hours are weekdays from 8:15 am until approximately 3:30 pm daily for a period of one week.



GEMS - 2006 (Cycle A): Students working in the Instron Lab on their adhesion samples.

- Students are required to write a short essay on why they want to attend. Those students who are military dependants should indicate this in their essay.
- The GEMS Program is carried out in the Rodman Materials Building of the US Army Research Laboratory, 4600 Deer Creek Loop, Aberdeen, MD 21005-5069. Students must have their own transportation to/from the program building each day.
- Students receive a stipend of \$100 for participation in the 1-week program. To receive a stipend, students must fulfill program requirements: perfect attendance, level/extent of participation, enthusiasm, behavior/professionalism. Stipends will be mailed approximately one month after class completion.