

Afternoon Workshops: April 30th, 2010

Workshop One - "Tipping Point Tools: National Girls Collaborative Project" (Amy Foster, Florida Girls Collaborative)

Description: Learn more about the National Girls Collaborative Project and how it can help you to achieve your goals for getting more girls involved in STEM. Create successful collaborative relationships to strengthen your capacity and broaden the reach of your organization. Find out how to: join and use the national program directory, apply for a mini-grant, and receive free evaluation tools and other valuable resources. Small things can make a big difference, so join us to share promising practices, leverage resources and together create the tipping point for the future of girls in STEM.

Workshop Two - "The Use of Media to Reposition our Ideas about Women in Engineering" (Dr. Leslie Liberman, Director of UCF Women's Research Center)

Description: This workshop will show a video, This is Engineering, and the media-based website produced at UCF and released during National Engineers Week in February, 2010. These efforts draw from the studies by the National Academy of Engineering (Changing the Conversation, 2008) and the recently released American Association of University Women's report Why so Few? Women in Science, Technology, Engineering and Mathematics, 2010. Many efforts have tried to encourage women to go into engineering but overall have not succeeded. A case will be made for a TV dramatic series about engineers that might have the same success as the CSI-genre programs have had motivating women and dispelling stereotypes. Now, 70-90% of undergraduate and graduate students in the forensic sciences are women.

Workshop Three - "DoD's March2Success" (MAJ. Deanne Ojeda, U.S. Army Recruiting company commander, Orlando and Mr. Nelson Castillo, Education Services Specialist, Tampa)

Description: March2Success is an on-line test preparation, self-paced course, which can improve student's performance on standardized tests by improving Math, Science, and English Skills. March2Success includes modules for: High School preparation (Assessments and preparation with an introductory study skills course and classes in Language Arts, Math and Science); Preparation for the FCATs or state standardized tests O SAT program (seven full-length practice tests for the SAT with detailed answer explanation and performance feedback); ACT program (seven full-length practice tests for the SAT with detailed answer explanation and performance feedback); Interactive flashcards (20 decks of verbal flashcards and five decks of math flashcards containing interactive exercise and quiz banks to reinforce learned concepts); Online gaming: Zero Hour Threat (this game is designed to increase ACT/SAT scores); Comprehensive English (language usage, Reading, Writing); Integrated Math (Basic Math, Algebra, Geometry, Statistics) and Integrated Science (Earth Science, Biology, Chemistry, Physics).

Workshop Four - "NASA Resources and You"

(Veronica Franco)

Description: Participants will have the opportunity to learn about the many NASA resources available for teachers and students along with exploring a robotics activity. Educators will construct end effectors to explore basic robotics and review the NASA website for resources.

Workshop Five - "Follow that line!"

(Allyson Prince, 7th Grade Science Instructor, Stonewall Jackson Middle School)

Description: As Mechanical Engineers, students will design and build a robot to go in a straight line or stop at a certain point. They will collect and analyze data, and relate their distance traveled to the elapsed time. Using graphing analysis, students will determine the relationship between speed, distance, time, and acceleration ($v=d/t$; $a= (v_f-v_i)/t$). To deepen their understanding of slope, students relate their own speed and position movements to a change in x and y values. Students will further elaborate on how this is used in context in the real world; mechanical engineers need to conduct specific time and speed studies to design escalators, cars, and braking systems.