Under the Microscope: Examining STEM Education

February 7-8, 2013

University of Maryland Baltimore County

Thursday, February 7 (Optional)

3:00 p.m. – 4:50 p.m.  Site Visit: Chemistry Discovery Class
A chance for reporters to see firsthand UMBC’s innovative approach to teaching introductory-level science courses. The Discovery system has improved students’ passing rate by using cooperative learning techniques and classroom technology to monitor student performance.

Friday, February 8

7:30 a.m.  Registration Opens – UMBC

8:00 a.m.  Welcome
- Michele Cahill, Vice President, Carnegie Corporation of New York
- Caroline Hendrie, Executive Director, EWA

8:30 a.m. – 9:30 a.m.  Why STEM? Why Now?
From the president’s State of the Union address to the local want ads, STEM education and the careers these disciplines can lead to have become a centerpiece of discussions of education reform. This discussion will explore why STEM has become such a hot topic.
- Linda Rosen, CEO, Change the Equation
- David Saba, COO, National Math and Science Initiative
- Michael Teitelbaum, Senior Advisor, Alfred P. Sloan Foundation
- Scott Jaschik, Co-Founder and Editor, Inside Higher Ed (moderator)

9:35 a.m. – 10:40 a.m.  Standard Issue?
With implementation of the Common Core State Standards for Mathematics under way at many schools and the Next Generation Science Standards on the horizon, what changes should students and families expect to see in classrooms? Will these new standards yield improved learning?
- Stephen Pruitt, Vice President, Content, Research and Development, Achieve
- William Schmidt, Distinguished Professor and Co-Director, Education Policy Center, Michigan State University
- W. Stephen Wilson, Professor of Mathematics, John Hopkins University
- Greg Toppo, National Correspondent, USA Today (moderator)

10:45 a.m. – 11:00 a.m.  Break

11:00 a.m. – 12:10 p.m.  The Science of Covering STEM: Advice from Reporters
Two top STEM education reporters offer their insights on developments reporters should be following this year along with tips for breaking down the issues and connecting with sources.
- Scott Jaschik, Co-Founder and Editor, Inside Higher Ed
- Erik Robelen, Assistant Editor, Education Week

12:15 p.m. – 1:30 p.m.  Keynote Luncheon
The president of the University of Maryland Baltimore County and a leader in the field of STEM education will discuss the need to draw more minorities and women into STEM professions, and what the education community can do to help.
- Freeman A. Hrabowski III, President, UMBC

1:30 p.m. – 2:15 p.m.  Is There a Pipeline Problem?
Much of the STEM discussion focuses on the need to educate people for careers that require math and science skills. Is there a shortage of capable employees and, if so, what efforts might produce more?
- Terry Grobe, Program Director, Jobs For the Future
- B. Lindsay Lowell, Director, Institute for the Study of International Migration, Georgetown University
- Mark Schneider, Vice President of American Institutes for Research and President of CollegeMeasures.org
- Kim Clark, Senior Writer, Money Magazine (moderator)

2:15 p.m. – 2:30 p.m.  “1 + 1” with Jacob Scott
When he created his viral video hit “Triangle Experts,” Montgomery Blair High School Teacher Jacob Scott put the hip in hypotenuse, proving that teaching and learning math can be cool. In an interview with EWA Public Editor Emily Richmond, Scott—the Maryland county’s 2011 NAACP teacher of the year—discusses his approach.

2:30 p.m. – 3:30 p.m.  Recruiting and Training STEM Teachers

Teachers with the background and skills to teach science and math effectively are often among the most difficult for schools to recruit and retain. This session examines several initiatives that intend to address this challenge.

- Richard Ingersoll, Professor of Education and Sociology, Board of Overseers Chair of Education, University of Pennsylvania
- Michael Lach, Director, STEM Policy and Strategic Initiatives, University of Chicago
- Rehana Shafl, Assistant Director, Teacher Education Scholars Program, UMBC
- Dale Mezzacappa, Contributing Editor, Philadelphia Public School Notebook (moderator)

3:30 p.m. – 4:30 p.m.  STEM Science Fair

Students from leading science and technology K-12 schools show off their projects and discuss the learning experiences that helped them succeed.