April 13, 2012

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Are you looking for ways to engage students through more active, collaborative learning? If so, you may find Problem-Based Learning (PBL) can help you meet your instructional goals while motivating students to work together to solve well-designed real or realistic problems. Three professors from the University of Delaware will present PBL approaches and offer advice on getting started with PBL.

**Dr. Stephen A. Bernhardt**
Professor Bernhardt is widely published in leading journals, with research interests centering on visual rhetoric, computers and writing, workplace training and development, and the teaching of scientific and technical communication. He is past president of both the Council for Programs in Technical and Scientific Communication (CPTSC) and the Association of Teachers of Technical Writing (ATTW).

**Dr. Mark A. Serva**
Dr. Mark A. Serva is an associate professor of Management Information Systems in the Department of Accounting and Management Information Systems, Alfred Lerner College of Business and Economics, University of Delaware.

**Dr. Meredith Wesolowski**
Dr. Meredith Wesolowski is an assistant professor in the Department of Chemistry and Biochemistry at the University of Delaware.
Problem-Based Learning
Steven Bernhardt, Mark Serva, and Meredith Wesolowski, University of Delaware

Problem-based learning is simple. Begin with the problem. Put students in teams. Have them learn by solving the problem. End by sharing what they learn. In this half-day workshop, experts from three disciplines (chemistry, business, English) at the University of Delaware will introduce faculty to PBL and share their experiences with workshop participants.

Student Success with the Society of STEM Scholars
Dr. Tara Ebersole, Community College of Baltimore County

The Society of STEM Scholars (SoSS) is a CCBC student-led organization committed to helping members succeed academically in the STEM fields through fellowship, discussions, lectures, and independent study. This session will provide background on our STEM initiative, rationale, and explanation of Society of STEM Scholars, the organizational framework, and the outcomes to date.

Dayton Community Model
Margy Stevens, Montgomery County Educational Service Center, Dayton Regional STEM Center

The presentation will focus on the Dayton Regional STEM Center and how the professional development teachers receive, through a STEM fellowship, is transforming schools and communities. STEM fellows include Pre-K through 12 educators, higher education professors, and engineers and scientists from local STEM industries and the Air Force Research Laboratory. Together they create quality STEM education instructional units for students and provide professional development to teachers from around Ohio, so they, too, can understand and implement quality STEM education in their classrooms.

Career Development in the College Classroom
Barbara Gregory, Carroll Community College

Having a career direction can motivate college students to finish courses and graduate. Resources are available to help that can be incorporated into the classroom. Learn about projects and events taking place at Carroll Community College that have helped students clarify career goals and become prepared for work.

Making the Introductory Science Lab Accessible Online
Dr. Sue Subocz and Dr. Ann Reagan, College of Southern Maryland

The presenters describe options and approaches for making a rigorous science laboratory experience accessible in an online format by looking at current approaches to implementing a fully online undergraduate level introductory physics laboratory course. Participants will get the opportunity to explore exciting simulation, hand-on, and virtual labs that can be simple to adopt in many science classes.

Engaging ALL Students in Learning!
Kelly Dobson, College of Southern Maryland

Participants will learn multiple ways to differentiate instruction and walk away with several multimodal teaching strategies. Participants will be actively involved during the session and have the opportunity to practice the strategies presented during the session. Attendees will be able to immediately implement strategies back in their classrooms.

Strategies of Success
Judy Corasaniti and Alberta Certo, The Art Institute of Pittsburgh

This presentation introduces strategies to establish a successful first-year experience and ways to engage EVERYONE in your institution to empower first-year students to improve retention and persistency. Learn how to create a culture of success by changing the language which will influence perception. The need to think outside the box, effective communication within the departments, and cohesiveness in faculty, administration, and staff to engage and empower the first-year experience are
key components. Practical ways to motivate the student to work to his/her fullest potential, such as multiple experiential learning activities, connecting transferable skills to the outcomes, and the importance of a stimulating environment all help build that culture of success. Discover how to empower students so that they keep graduation in their design throughout their years of education.

E.M.B.R.A.C.E. Math
Georgette Green-Hodnet, Theodore G. Davis Middle School and Debra Lambert, Prince George's Community College

An interactive workshop for educators and administrators seeking to fine tune their instructional delivery from Engagement to Evaluation. This session directs teachers and faculty to reflect upon critical areas that can affect student progress, best practices in lesson planning/delivery and closing the achievement gap. There will be discussion about teachers who EMBRACE math, having students achieve greater success. Real time tools that teachers can implement immediately to increase student success and achievement will be provided.

SESSION 1B 12 – 12:50 p.m.

Open Learning: The Bridge to Success Project and Student Success Strategies
David Lascu, Anne Arundel Community College

This session will describe The Bridge to Success Project and how it has adapted two open educational resources (Learning to Learn and Succeed with Math) to engage students in a unique online learning environment to promote retention and recruitment. The session will review how the courses have been enhanced with pre-and-post assessments, diagnostic activities, formative assessments, and multi-media tools to engage students, reduce math anxiety, and promote a real-world approach to learning. The session will showcase the technology, and provide an overview of the evaluation strategies that have been employed to ensure the delivery of quality content (usability, accessibility, developmental testing). Additionally, the project’s success in supporting adult education and GED preparation programs, workforce development programs, and nonprofit organizations supporting underserved populations and their linkages with higher education will be reviewed. Finally, the project management approach that was undertaken will be presented to promote this diverse, multi-institutional OER project.

Energize, Engage, Empower Student Thinking and Learning with Spreadsheet Simulations
Scott Sinex, Prince George's Community College

Textbooks contain static graphs, so why not bring them alive in an animated interactive spreadsheet? Using a predict-test-analyze approach, it is possible to engage students plus foster critical thinking and conceptual understanding. Experience it and get resources and instructions to create your own. In the 21st century, it’s time for click-and-think over chalk-and-talk!

Best Practices for Online Student Success
Rose Miller, College of Southern Maryland

Do you want to get your students’ attention and have them ACTUALLY study your content materials? Then, you will want to attend this presentation. Online teaching/learning strategies will be discussed for a variety of student learning styles. Techniques and strategies for ‘how’ to introduce your student to your course will be discussed. The following best practices will also be explored: how to communicate with your students, time saving tips when communicating with students, developing assignments to hold your students interest, and best strategies when presenting material for the online student.

Connecting the Dots: A Nontraditional Approach to Teaching ISTEM Courses
Barbara Johnson, College of Southern Maryland

The demand for highly educated and skilled workers in the science, technology, engineering, and mathematical fields is urgent. How do we prepare students to meet these demands? Learn about an innovative program to develop the cognitive skills needed to be successful and how these skills can be transferred to multiple disciplines.

Trends in Cybersecurity
Wendy Hume, College of Southern Maryland

Find out about the latest security concerns being addressed by cybersecurity professionals. Topics covered will include newest threats facing security professionals such as BYOD, Big Data, Social Engineering, and The Cloud.
LUNCH SESSION

Science Education in Southern Maryland
Bill Montgomery, Margaret Bolton, and Melanie Osterhouse,
College of Southern Maryland; Lora North and Michele Craig,
Charles County Board of Education; and Lisa Burkett, Calvert
County Public Schools

This panel will discuss the current trends in science education in Southern Maryland. Each panelist will update the participants on activities, curricula, and innovations within their particular system.

Assessing Risk: What to Do When Mental Health Issues Effect Academic Performance and Classroom Dynamics
M. J. Raleigh, St. Mary’s College of Maryland

Often we feel unprepared to respond to a student who shares that they are suicidal in a writing assignment or who openly threatens another student during class. This discussion will look at concrete skills for assessing risk in the classroom; explore techniques for responding to the suicidal/homicidal student, and review issues of appropriate accommodations for mental health disabilities under current ADA laws.

Promoting Student Literacy and Publishing
Michelle Brosco Christian and Anthony Owens, College of Southern Maryland; Margaret Jenkins and Dr. Kellee Jenkins, Prince George’s Community College

Gather new ideas for your reading and writing courses—from the developmental to the advanced level—in this panel presentation. Improve students’ reading comprehension through vocabulary and writing to learn strategies. Help students develop strong reading, writing, and thinking skills through inquiry. And, finally, lead your advanced students into the professional world of writing with modified blog publishing.

Does Retention Matter? The Economic Impact of Student Persistence
Frank Potter, ACT, Inc.

The session will look at ACT’s recent survey on “What Works in Student Retention,” (WWSR) with particular emphasis on the financial implications of Student Success and the recommendations from our 5TH Survey on WWSR. Most recent data from ACT will be part of the session.

Engineering Education in Southern Maryland
Neal Wilsey, Robert Marino, and Fawaz Roumani, College of Southern Maryland and Robert Bushman and Butch Arbin, Charles County Board of Education

This panel will discuss the current trends in engineering education in Southern Maryland. Each panelist will update the participants on activities, curricula, and innovations within each particular system.

Mastering Math, Not the System
Monica Selinsky, Hawkes Learning Systems (Vendor)

You know the scenario: Students seem to be doing well on homework, yet are performing poorly on exams. With Hawkes, students cannot “cheat the system” to get through assignments. Instead, they are held accountable for mastering the material without relying on learning aids. Discover how Hawkes motivates students to succeed!

Problem-Based Learning
Steven Bernhardt, Mark Serva, and Meredith Wesolowski, University of Delaware

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The Impact of Micromessaging on Equity in STEM
Dr. Tara Ebersole, Community College of Baltimore County

Research suggests that we have the “big” things in place but it is the subtler messages that bombard our students and impact their choices in pursuing STEM. The session will provide participants with the teaching implications connected to this research that will help close gender and racial gaps in STEM.

SESSION 2

2:10 – 4 p.m.

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SESSION 2A  2:10 – 3 p.m.

The Brain, Your Student, The Big Picture
Yvette Dodson, College of Southern Maryland

Learn how the brain processes, stores, and recalls information and how it differs across different stages of growth and development in our lives. We will discuss what strategies work best to stimulate the brain and create strong neural pathways. Using stages of development, learn why certain strategies of learning work better at different ages. This presentation brings in current theories of developmental and educational psychology, using brain research to connect the dots!

Team-Based Learning
Dr. Sarah Leupen and Dr. Cynthia Wagner, University of Maryland Baltimore County

Team-Based Learning (TBL) is a learning strategy in which most of the work of the class is done in-class, in structured, permanent learning teams. We will introduce this learner-centered, ‘flipped classroom’ method, and provide the necessary information to teachers who would like to use TBL, all by giving participants the experience of TBL themselves.

Characteristics that Attract Girls and Women into the Engineering Field in Puerto Rico
Dr. Maria I. Bryant, College of Southern Maryland

This presentation reports preliminary findings about the societal factors that impact the recruitment and retention of Puerto Rican women into the engineering field. Implications of these findings are examined relative to gender findings in the U.S. mainland.

Improve Your Study Skills to Complete
Ewa Gorski, Ellen Lathrop-Davis and Stephen Kabrhel, Community College of Baltimore County

Are you frustrated with 200-level students who lack study skills? Do they have skills that just don’t work? Do you teach online or hybrid/blended science courses? This presentation will highlight a variety of strategies to increase students’ awareness of study skills and techniques related to successful completion of both traditional and web-based 200-level courses. Techniques can be used across a broad spectrum of disciplines and will include student advising, take-home exams, pre-test quizzes, and classroom and online interactive activities.

Knowledge-as-Theory-and-Elements
Dr. Alexander Munson, Towson University

STEM educators have been divided among two perspectives on how students acquire and organize knowledge: knowledge-as-theory and knowledge-as-elements. Researchers such as diSessa and Carey have been exploring a convergence of the two perspectives. This presentation discusses a new synthetic perspective backed by the latest research in undergraduate level mathematics.

Engineering Activities for Children
Rob Farinelli and Bobby Marino, College of Southern Maryland

This presentation will focus on how to get children involved in constructivist learning activities that help to foster problem solving and creative thinking while focusing on conceptual understanding. A demonstration of some hands on activities will be presented.

Teaching Scientific Literacy in the “Soft” Sciences: How to Incorporate Empirical Data into Social Science Teaching
Dr. Darlene A. Smucny and Katherine Humber, University of Maryland University College

Social science courses often are viewed by students as “soft” sciences, accessible and relevant to their lives, but devoid of academic and scientific rigor (i.e. scientific literacy, hypothesis testing, data analysis, interpretation). In this roundtable discussion, we will explore best practices to incorporate empirical data and research into instruction of social science courses.
ETC is a nonprofit research and development organization focusing on engineering activities in autonomous systems, informatics, and policy development. Founded in 2006, ETC has built a portfolio of cutting edge technology projects & innovative policy initiatives for the DoD. We are committed to advancing Science, Technology, Engineering, and Math (STEM) in Southern Maryland.

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8 AM – 12 PM

- Wetlands Cleanup
- Forest Trail Cleanup
- Build Vegetable Beds
- Farmers Market

PLEASE BRING:
Shovels, Wheel Barrels, Gloves
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Refreshments will be provided

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Celebrating
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“Young people growing up now take all these blessings for granted, but we oldsters still remember when we had to do it the hard way.”

Lena R. Welch
SMECO customer, Newburg, Maryland

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July 10-12: Chautauqua: Bicentennial of the War of 1812, La Plata Campus
July 10: Major General Robert Ross
July 11: President James Madison
July 12: Rosalie Stier Calvert

Leonardtown Campus - Tuesdays
July 17: No Green JellyBeans Band
July 24: The Complete Works of William Shakespeare (abridged)
July 31: Pet the Monster Band

La Plata Campus - Wednesdays
July 18: You’re A Good Man, Charlie Brown (musical)
July 25: The Complete Works of William Shakespeare (abridged)
August 1: Schoenhause Rock Live (musical)

Prince Frederick Campus - Thursdays
July 19: You’re A Good Man, Charlie Brown (musical)
July 26: The Complete Works of William Shakespeare (abridged)
August 2: Solid Brass
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