October 3, 2015

It is an honor and a privilege to welcome each of you to the Fall 2015 Human Anatomy and Physiology Society (HAPS) conference on Maryland’s beautiful Eastern Shore on the campus of Wor-Wic Community College. This is a wonderful opportunity to learn and collaborate with other educators in this field and to share best practices and success stories with other professionals.

Wor-Wic certainly understands the value of current, valid, and evidence-based practices within every educational discipline; and of the teaching, learning, and developing of new and improved processes through research and ultimately the dissemination of this information.

Thank you for your attendance and participation in this conference. I wish each of you a great and memorable experience.

Sincerely,

Murray K. Hoy
President
The Wor-Wic Community College campus is located on the southeast corner of Route 50 and Walston Switch Road in Salisbury. This map provides a general guide for the location of buildings on campus.

Building Codes

- AHB  Allied Health Building
- BH  Brunhors Hall
- FOH  Fulton-Owen Hall
- GH  Guerrieri Hall
- HC  Hazel Center
- HH  Henson Hall
- JC  Jordan Center
- MB  Maintenance Building
- MTC  Maner Technology Center

Directions

**From the West:** Traveling east on Route 50, approaching Salisbury, take the Route 50 bypass toward Ocean City. Exit at the Route 50 East to Ocean City ramp. Turn right at the second stoplight, at Walston Switch Road. The next left turn is the entrance to the campus.

**From the East:** Traveling west on Route 50, go past the signs for Willar's, Pittsville and Parsonsburg until you see the signs for the college and Walston Switch Road. Turn left onto Walston Switch Road. The next left turn is the entrance to the campus.

**From the North:** Traveling south on Route 13, approaching Salisbury, take the Route 13 bypass toward Norfolk. Exit at the Route 50 East to Ocean City ramp. Turn right at the second stoplight, at Walston Switch Road. The next left turn is the entrance to the campus.

**From the South:** Traveling north on Route 13, approaching Salisbury, take the Route 13 bypass toward Dover. Exit at the Route 50 East to Ocean City ramp. Turn right at the second stoplight, at Walston Switch Road. The next left turn is the entrance to the campus.
## HAPS Eastern Regional Meeting

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<td>Guerrieri Hall Auditorium (No food or Beverage allowed!)</td>
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<td>9:00 AM – 10:00 AM</td>
<td>Speaker 1: Jeff Hollar</td>
<td>Guerrieri Hall Auditorium (No food or Beverage allowed!)</td>
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<td>10:00 AM – 10:45 AM</td>
<td>Workshop Session 1</td>
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<td>3:15 PM – 3:45 PM</td>
<td>Closing &amp; Door Prizes</td>
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### Fun Animal Bone Challenge

Sometime today, between sessions, be sure to visit Henson Hall 300 Biology Lab. Professor John Koch has set up a bone lab practical with various animal bones he has collected over the years. **Are you up to the challenge? How well can you apply your human bone knowledge?** Complete the lab practical, check your answers with the KEY in the room, and turn in your score-card at the registration desk before 2:30 PM for a prize drawing at the closing event of the day. You must be present at the drawing to win.

If you wish to visit the Wor-Wic Community College Campus Bookstore, it is located right next to the Hazel Center and is open from 9 AM to 1 PM today.
Wireless Access—Student / Public

Wor-Wic Community College provides free Wi-Fi access across the campus to students and the public. To access wireless from any laptop, tablet or smartphone with internet access, do the following:

- Choose Wor-Wic Public wireless network from your device’s wireless menu.
- Open a web browser and you will be requested to type in your email address in the Guest User box. Review our Acceptable Use Policy. Enter your email address.
- Click Log In and you will be connected.
HAPS Eastern Regional Meeting 2015
Exhibitors & Sponsors

HAPS would like to recognize and thank all of our conference exhibitors and sponsors. Their generous support makes this conference possible.

**Sponsors**
eScience Labs

**Exhibitors**
ADIInstruments
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Thank you to eScience Labs for providing the Afternoon Snack!

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**Please keep in mind:**

Absolutely **NO food or beverage is allowed in the Guerrieri Hall Auditorium**. Please dispose of any food or beverage before entering the Auditorium during this event.
Professor Jeff Hollar graduated from James Madison University in 1987 and 1990 with degrees in Biology. His work focused on molecular genetics and physiology. Before that, however, he served four years in the US Navy as a hospital corpsman. During this time his varied medical assignments exposed him to a wide range of medical experiences and instilled in him a lifelong desire to learn and teach. After graduation from James Madison University in 1990, he decided to go to Japan and taught English/Science in public schools for the Japanese government from all levels, elementary through high school. He ultimately stayed in Japan for 14 years and also taught at Nantong University in China for a year before returning to the US in 2005. He began teaching Human A&P at Lord Fairfax Community College in Middletown, VA in January 2006 where he is currently Associate Professor and A&P Coordinator for the college.

In 2012, he graduated with another degree: Master of Science in Human Anatomy and Physiology Instruction (MSHAPI). He is the first graduate of this online degree program at New York Chiropractic College and has now joined the adjunct faculty, teaching Urinary System, Acid/Base Balance, Reproductive System, and Development/Inheritance in the MSHAPI program. One important aspect of that program involves students developing their own original Multimedia content presentations. Professor Hollar has noticed that many instructors, even veteran ones, really load up their PowerPoint slides which inadvertently creates cognitive overload for the students. He will share what cognitive science and educational research tells us about how this impacts effective and meaningful learning, and then will explore ways to incorporate methods to reduce the overload in your own multimedia teaching.
Dr. Donna DeCosta is the married mother of two sons with life-threatening food allergies. Her extensive experience and leadership with regard to food allergies began with the diagnosis of her eldest son in 2000 with severe peanut and tree nut allergies. Shortly thereafter, Donna founded and continues to facilitate the local support group Supporting Allergic Families through Education (S.A.F.E.).

Donna is passionate about sharing her experiences and educating others about food allergies. After attending a retreat, her desire to help other families navigate the challenges and risks of severe food allergy led her on a seven-year journey to write and publish A Little Bit Can Hurt, The Shocking Truth about Food Allergies: Why We Should Care, What We Can Do. Her book underscores the dual message that food allergies are life threatening but also manageable. It recounts the very personal narratives of those living with food allergies, both directly and indirectly, and reveals the beloved face of your food allergic child, student, patient, spouse or friend.

She is also the founder of FoodAllergyMomDoc.com, an online community committed to promoting food allergy awareness and understanding. Through her website, book and social networking, Donna desires to support food allergic individuals as well as the family members, friends, teachers, caregivers and other people in their Food Allergy Circle, a term which she has coined. Dr. DeCosta is an inspiring food allergy speaker and advocate. She is a member of Food Allergy Research & Education (FARE) and Kids With Food Allergies (KFA).

Dr. DeCosta is a radiologist by profession. She obtained her undergraduate degree from Cornell University and pursued her graduate studies at the University of Pennsylvania School of Medicine, from which she holds a doctorate in medicine. Currently she is a board certified radiologist for Advanced Radiology.

Dr. DeCosta will be providing a glimpse into the world of food allergies from a personal perspective. By sharing basic food allergy information, resources and personal stories, she will discuss the shocking truths about food allergies, why you should care and what you as an educator can do to protect and enhance the lives of those living with food allergies.
Workshop Session 1  
10:00 AM – 10:45 AM

Room HH 105: The Do-Re-Mi’s of A&P: Teaching Interactively with Content-Rich Jingles  
Gregory J. Crowther, University of Washington, Bothell, crowther@uw.edu  
What if the songs that got stuck in our students’ heads were A&P songs? This workshop will explore the rationale and logistics of teaching A&P with music, focusing on the interactive jingle format favored by the presenter. In this format, students analyze song lyrics to review and extend previously introduced material, then use online resources for further practice. Come ready to sing, rap, discuss, and/or critique! The presenter has written dozens of freely available A&P jingles, maintains a catalog of others’ science songs at the website SingAboutScience.org, and conducts research on the educational value of such songs.

Room HH 203: The Biology of Skin Color: An understanding of the variation in skin color and its role in human health. Free anatomy and physiology resources from HHMI’s BioInteractive and the Smithsonian Institute.  
Melissa Csikari, The Howard Hughes Medical Institute (HHMI), csikarim@hhmi.org  
This workshop will focus on the biology of human skin color variation and its role in human health. Participants will see the short film, The Biology of Skin Color, and a new interactive on human skin color. Together, these resources guide students through the science behind skin coloration, the interplay between genetics and the environment, and the protective role of the integumentary system against certain birth defects, vitamin D deficiencies, and cancer. Participants will also see highlights from a curriculum unit on the evolution of skin color from the Smithsonian’s “What does it mean to be human?” collection.

Room HH 301: The Good, the Bad and the Ugly: Using Cases and Discussions in an Online Physiology Course  
Camille Freeman, Maryland University of Integrative Health, cfreeman@muih.edu  
When we took our face-to-face physiology course online in 2013, it was a bit of a disaster. Two years and fifteen sections later, students consistently report that it's one of the most engaging courses in our program. Camille will share stories, critiques and suggestions based on the experience of refining the course and finding ways to use case studies and discussion boards to make the course more meaningful for online students. The session will also include a working list of physiology-based discussion questions for the online environment and the opportunity to share questions and ideas with other participants.
Room HH 204: Arterial blood Gases Made Simple
John Koch, John Tyler Community College, jckoch45@verizon.net
“Have ABGs (Arterial Blood Gases) ‘Always Been Greek’ to you?  At last here’s a quick and easy way to interpret ABGs, one you’ll remember long after complicated textbook explanations have faded.”  So begins Alan K. Buckingham’s 3-page article titled “Arterial Blood Gases Made Simple” in NursingLife 30 years ago.  This workshop will review Alan’s simple seesaw vs. elevator method for determining whether a patient is in respiratory acidosis/alkalosis or metabolic acidosis/alkalosis.  We will also review how to determine the patient’s compensation status as un-, partially, or fully compensated.  Background information will be given and sample problems worked to illustrate how easy ABG diagnoses are with this technique.

Room HH 201: Letting Google Drive Your Class
Joe Rineer, Delaware Technical Community College, jrineer1@dtcc.edu
An overview and tips on using Google Drive to make the classroom more efficient, collaborative and innovative.

Room MTC 201: How to teach a successful one semester A&P course online!
Sandy Taylor, Delaware Technical Community College, staylor8@dtcc.edu, Dr. Lakshmi Cyr, Delaware Technical Community College, lcyr@dtcc.edu
Learn some tricks for student success.  This will be a workshop dependent on computer use, so bring a headset with microphone to participate in a “live” lecture.  You will walk away with an outline on how to structure each unit.  This is great for first time online instructors to hopefully give hands on knowledge in use of online meeting software programs for synchronous learning.  You will also learn how to structure tests and how to decrease the excessive amount of time an online class can consume.
*NOTE: This workshop is in the computer lab on the second floor of Maner Technology Center (not Henson Hall where all the other workshops are being held).  It is limited to 18 participants, on a first-come basis.
Workshop Session 2
11:15 AM – 12:00 PM

Room MTC 201: Enhance Your Classroom with Learning Catalytics™
Jake Dechant, University of Pittsburgh, jdec@pitt.edu
This workshop is sponsored by Pearson
Bring your web-enabled device (laptop, smartphone, or tablet) to “test drive” the Learning Cataytics student engagement, assessment, and classroom intelligence system. A&P Professor Jake Dechant of the University of Pittsburgh will share examples and results from his class. With Learning Catalytics educators can assess students in real time, using open-ended tasks to probe student understanding; understand immediately where students are and adjust lessons accordingly; improve students’ critical-thinking skills; access rich analytics to understand student performance; and add questions to make Learning Catalytics to fit the course exactly.
*NOTE: This workshop is in the computer lab on the second floor of Maner Technology Center (not Henson Hall where all the other workshops are being held). It is limited to 18 participants, on a first-come basis.

Room HH 304: Those flip-flops are going to get you a new set of knees.
Dr. Debra A. Hobbs, Delaware Technical and Community College, Owens Campus, drdebrahobbs@gmail.com
This workshop will be a discussion and demonstration of foot, knee and hip anatomy and the biomechanical affects of pronation and/or poor foot support on the adjacent joints. The connection between altered biomechanics and ultimate need for total joint replacement will be examined. There will be a comparative radiographic analysis of normal and pathological imaging. A second part focuses on the degeneration of intervertebral discs. Causes, treatments and prevention of degenerative joint disease and degenerative disc disease will be discussed.

Room HH 301: Generating “Aha!” Moments with Inexpensive, Everyday Props
Gail Jenkins, Montgomery College, gwjenkins1@verizon.net
This workshop is sponsored by Wiley
Join us as we share effective, tried and true tricks of the trade that use commonplace, familiar props to kinesthetically help your students truly understand and retain some of the more difficult Anatomy and Physiology concepts. Come and see engaging learning activities that can help your students say, “That was easy!” This fun, interactive workshop will conclude with a brief introduction to a snazzy, innovative new online A&P product.
Room HH 201: Using online narrated video clips to improve student learning.
Phil Stephens, Villanova University, phil.stephens@villanova.edu
Interactive Flash animations are used in lecture to explain physiological concepts. These animations and narrated video clips (mp4 files embedded in HTML) are placed online for unlimited student access via computers or cell phones. You will be shown how these clips are fabricated and the outcomes of exams and student surveys which demonstrate that the narrated video clips improve student learning.

Room HH 203: Using Purposeful Reading Assignments to Increase Student Preparation for Class
Amy Troyer, Pennsylvania College of Health Sciences, astroyer@pacollege.edu
Struggling to get students to read the text for understanding in preparation for class? I will present how I use a 4,3,2,1 Purposeful Reading assignment to help students focus on content as they read the text in preparation for class. Students are lead from defining and describing components of the assigned text to identifying the most important and most difficult components of the text. I then assess the assignment and use the student identified “tough concepts” to design learner centered activities that will enhance their in-class comprehension.

Room HH 204: Less Blah, Blah Blah; More Aha – Best HAPSter Demos II
Carol Veil, Anne Arundel Community College, cbveil@aacc.edu, Javanika Mody, Anne Arundel Community College, jmody@aacc.edu, John Koch, John Tyler Community College, jckoch45@verizon.net, Ewa Gorski, Community College of Baltimore County, egorski@ccbc.md.edu
Four HAPSters are collaborating to show and explain their best, student-tested, in-class demonstrations that help students gain a particular insight or inspiration. A range of anatomical and physiological principles and processes will be included, focusing on those that often evade students through misconceptions or confusion. A handout will be provided for workshop attendees, describing the materials and preparations needed and giving procedures for presenting the demos in class. Attendees are sure to leave with at least one, and likely several, dynamic demos to enlighten and energize their students.
Workshop Session 3  
2:30 PM – 3:15 PM

Room MTC 201: Explore HHMI Biointeractive  
Melissa Csikari, The Howard Hughes Medical Institute (HHMI), csikarim@hhmi.org  
This workshop in the computer lab will introduce you to the HHMI Biointeractive site. Explore the array of free educational materials offered by HHMI for science teachers and students, including interactive multimedia, virtual labs, videos, scientific animations, and other teacher resources for Anatomy and Physiology. Howard Hughes Medical Institute is dedicated to advancing science education and provides powerful teaching tools for use in high schools, colleges, and universities across the country, free of charge.  
*NOTE: This workshop is in the computer lab on the second floor of Maner Technology Center (not Henson Hall where all the other workshops are being held). It is limited to 18 participants, on a first-come basis.

Room HH 304: Support Student Success in A&P with a Remedial, One Credit, Concurrent, Allied Health Study Skills Class  
Beverly Dunham, Wor-Wic Community College, bdunham@worwic.edu, Dr. Stacey Hall, Wor-Wic Community College, shall@worwic.edu  
Lack a prerequisite for A&P 1? We have developed a remedial co-requisite which focuses on students actively working in learning teams to develop study skills necessary to acquire knowledge at cognition levels above memorization. A&P content is used to drive a variety of “How To Learn” activities. As students become responsible learners, their knowledge acquisition potential increases supporting their success in A&P. We will share: some learning skill building activities using A&P content; Rubrics used to evaluate class participation, weekly Blackboard assignments & the student's portfolio which becomes a learning tool for A&P; and group structure and the instructor's role as facilitator.

Room HH 203: Student-centered Learning in Physiology Courses  
Erin Keen-Rhinehart, Susquehanna University, keen-rhinehart@susqu.edu, Jan Foster, North Greenville University, jan.foster@ngu.edu  
Physiology classes are ideal for implementation of student-centered learning. Inquiry-based laboratories, case-based activities and human physiology experiments enhance student learning and build confidence. Sharing student-centered learning methodologies improves physiology education and supports collaborative educational research initiatives. The American Physiological Society (APS) formed the Physiology Education Community of Practice (PECOP) as an outgrowth of the first biannual APS Institute on Teaching and Learning in 2014. PECOP is a community for physiology educators at any academic level. This workshop will introduce various evidence-based student-centered teaching methods, while sharing experiences with PECOP and online resources designed to support educators.
Room HH 204: Paper strips and arrow diagrams: Two simple student activities to enhance linear thinking and learning of cause and effect events.
John Koch, John Tyler Community College, jckoch45@verizon.net
Paper strips and arrow diagrams can be used to teach students how to practice learning physiological processes that occur in sequential steps. The level of complexity can be varied to meet the needs of students. In this hands-on session, participants will work through examples of both types of activities and then discuss ways to enhance and/or combine them with other active learning exercises.

Room HH 105: Dr. Drill's Stay Fit While You Sit
Dr. Aaron Oberst, Gwynedd Mercy University, drdrill0530@live.com
Stay Fit While You Sit is a seated regimen of stretches, exercises and A&P motivation that is appropriate for most any audience. In the scholastic setting, the program personifies "active learning," as it engages students in the content both physically and mentally, making education fun and developing teamwork.

Room HH 201: A Functional Medicine Treatment Perspective Based on Thyroid Physiology
Dr. John Rees, DC, CFMP, Logan University, doctor_rees@yahoo.com
Thyroid physiology is reviewed and a Functional Medicine treatment approach to thyroid dysfunction is explained and contrasted with traditional medicine approaches.
HAPS would like to thank the following people for making this meeting possible!

Conference Committee from Wor-Wic Community College:
- Scarlett Adkins, Part-Time Science Laboratory Aide
- Lauren Cross, Science Laboratory Coordinator
- Susan Davis, Instructor of Biological and Physical Sciences
- Beverly Dunham, Adjunct Instructor of Biological Sciences
- Dr. Stacey Hall, Mathematics and Science Department Head and Assistant Professor of Biological Science
- Shawne’ Mumford, Administrative Associate I, Mathematics and Science Department
- Dr. Edward Taylor, Professor of Biological Sciences
- Terry Thompson, Professor of Biological Sciences, Conference Coordinator

Workshop Committee from Delaware Technical College:
- Suzanne Marsh, Faculty, Science
- Barbara Wiggins, Department Chair, Faculty, and Biotechnology Program Advisor, Conference Co-Coordinator
- Tina Yocum, Faculty, Science