CHEO Discipline Panel
Faculty Professional Development Workshop

By Design:
Taking ALL Allied Health Students Across the Finish Line

Provided by the Western Interstate Commission for Higher Education for the Consortium for Healthcare Education Online (CHEO)

May 14-15, 2015
SHEPC Learning Center
Boulder, CO
Message from WICHE

Welcome to Boulder, the home of the Western Interstate Commission for Higher Education (WICHE), dedicated to helping its 16 member states and territories expand educational access and excellence for all citizens of the West.

For this final faculty professional development workshop, we are pleased to offer thought-provoking topics that will guide you when developing and enhancing your allied health hybrid and online curriculum. With higher education’s emphasis today on providing equal educational access, whether addressing the needs of rural students, those working full-time jobs, those in the military or returning from duty, or those who require special accommodations to be successful, each of you are striving to deliver opportunities through channels that are open to all students.

At the same time, you are challenged with an ever-changing landscape in the health care industry. This shift provides a unique opportunity for you to rethink the way you teach and to provide students a chance to experience technologies in your course that will be part of everyday practice in their field of study. Collecting data remotely, using mobile devices for collecting information, and reviewing medical information from a distance are part of today’s medical landscape.

We have enjoyed delivering topics in these professional development workshops and webinars that can expand your toolkit and be applied when creating new and converting existing educational content to hybrid or online delivery. Thank you so much for allowing us to be a part of your important work.

Sue Schmidt,
NANSLO/CHEO Project Coordinator, WICHE

Overview

This professional development workshop is delivered to faculty from the eight partner institutions participating in the Consortium for Healthcare Education Online (CHEO) initiative, funded through a U.S. Department of Labor TAACCCT grant.

During the two-day workshop, faculty will have the opportunity to clarify their understanding of what open educational resources (OER) are, learn the value of implementing universal design learning (UDL) in their curriculum from the start of their development work, identify UDL currently embedded into their own course content and how to expand its application, learn about the expanded offerings and capabilities available through the NANSLO labs serving their institutions, see how colleagues have used CHEO dollars to create innovative content, gain knowledge in how interactive simulations have been created and delivered to students, and hear about the ever-changing landscape of higher education and where it is heading.
Workshop Objectives

By the end of this workshop, you will be able to:

• Describe how OER applies to content you have developed.
• Determine when to start thinking about UDL and how it can be incorporated into your educational material.
• Define NANSLO lab activities that can be used in your curriculum and how you will schedule the activity(ies).
• Identify innovative education approaches faculty have used that could be used in your classes.
• Describe how PhET interactive simulations are delivered and used by students.
• List the opportunities and challenges in using traditional labs, virtual labs, simulations, and lab kits.
• Discuss ways higher education is changing and some of the technologies and collaborative opportunities coming.

Who Should Attend

• Faculty developing or converting allied health courses to online or hybrid delivery including those incorporating a laboratory component as part of the course.
• Faculty considering or planning to incorporate a NANSLO remote web-based lab activity in his/her course(s).
• Instructional designers assisting these faculty in the development of these courses.

Workshop Coordinators

Sue Schmidt is the NANSLO/CHEO project coordinator for WICHE. Schmidt provides professional development opportunities for CHEO science and allied health faculty who are creating remote lab experiences utilizing the NANSLO lab and its resources in CHEO courses and for CHEO career coaches. Schmidt facilitates communication between members of discipline panels and career coaches to share best practices and project updates and also serves as the project manager for the development of the new NANSLO Scheduling System. Previously, she worked for Colorado Mountain College. Schmidt holds an M.A. Ed. from George Washington University with a focus in educational technology leadership and a bachelor of science degree in business administration.

Patricia (Pat) Shea is the director for academic leadership initiatives at WICHE. Shea oversees the activities of three membership-based organizations: WICHE Internet Course Exchange; Western Academic Leadership Forum; and Western Alliance of Community College Academic Leaders. In addition, she directs WICHE’s involvement in three regional collaborative projects: the North American Network of Science Labs Online; the Consortium for Healthcare Education Online; and the Interstate Passport Initiative. Prior to serving in this position, Shea served as the assistant director of WCET, also based at WICHE. She holds an M.A. in educational administration and supervision from George Mason University.
Preliminary Workshop Agenda

Thursday, May 14

8:45 – 9:00 am  Welcome and Goals for the Day

Speakers:
David Longanecker, president, WICHE
Sue Schmidt, NANSLO/CHEO project coordinator, WICHE

9:00 – 10:00 am  OER Revisited

As awareness of Open Educational Resources (OER) increases so do the questions about just what is and isn’t OER. What is OER – textbooks, simulations, lab resources, online learning course materials? What is the difference between OER and publishers’ traditional course materials? Join Paul Stacey as he unpacks these questions and shows how the answers affect practices associated with use of existing OER and creation of our own.

As faculty working on the CHEO program, you probably have questions about OER, the process of contributing them to Skills Commons, and what happens to them going forward. Stacey welcomes all questions and hopes to not only help you meet TAACCCT requirements but inspire you about the future of OER.

Speaker:
Paul Stacey, associate director of global learning, Creative Commons

10:00 – 10:15 am  Break

10:15 – 11:15 am  Applying UDL to Your Course Material to Enhance Student Learning

Today’s learners have diverse abilities and backgrounds, including students with physical, sensory, and learning disabilities, differing cultural and linguistic backgrounds, varied preferences and motivations for learning, students who are unusually gifted, and many others. As faculty, you are responsible for ensuring that you provide learning opportunities that ensure student success. How do you meet these challenges when planning your curriculum? Universal Design for Learning (UDL) assists in meeting the challenge of diversity by providing flexible instructional materials, techniques, and strategies that help design instruction to meet these varied needs. In this session, Sam Johnston and Gerry Hanley will first provide insights into what faculty need to know about UDL, why using it is so important, how to apply its standards to curriculum, and how its application optimizes the learner experience. Then, working closely with you later today, they will assist you in identifying UDL approaches you have already embedded into your curriculum and guide you in identifying other approaches to expand your UDL strategies.

Please bring course material from your CHEO courses to use during the two-hour afternoon UDL working session.
Speakers:

Gerry Hanley, assistant vice chancellor, Academic Technology Services, and executive director, Multimedia Educational Resource for Learning and Online Teaching (MERLOT), California State University, Office of the Chancellor

Sam Johnston, research scientist, Center for Applied Special Technology (CAST)

11:15 am – 12:15 pm Applying UDL to Enhance Student Engagement and Learning
Awarded Colorado State University’s N. Preston Davis Award for Instructional Innovation with an emphasis on Universal Design for Learning, McLean will share some of the UDL techniques she uses in her large general microbiology course.

Speaker:
Jennifer McLean, microbiology, immunology, and pathology faculty, Colorado State University

12:15 – 1:15 pm Lunch

1:15 – 3:15 pm Working Groups
Using course material brought to this session, facilitators will work with you to identify ways to incorporate UDL into your coursework and identify UDL best practices already used.

Facilitators:
Gerry Hanley, CSU
Sam Johnston, CAST
Paul Stacey, Creative Commons

3:15 – 4:00 pm NANSLO Update
In this session you’ll get a chance to hear about all the NANSLO lab activities created for CHEO, find out how many students have been served by these activities, and how you can use the NANSLO Network Scheduling System to reserve blocks of time for your students.

Speakers:
Albert Balbon, NANSLO British Columbia Lab and supervisor of distributed learning, North Island College (NIC)
Farah Bennani, CHEO allied health curriculum lead
Dan Branan, lab director, NANSLO Colorado Lab (CCCS)
Brenda Canine, lab manager, NANSLO Montana Lab (GFCMSU)
Farnosh Family, CHEO chemistry curriculum lead
Kate Lormand, CHEO biology curriculum lead
Sue Schmidt, WICHE

4:00 – 4:15 pm Reflections of the Day
Friday, May 15

8:45 – 9:00 am  Welcome and Goals for the Day
Sue Schmidt

9:00 – 10:00 am  Faculty Showcase
CHEO faculty will discuss creative strategies and tools used in their curriculum to engage students and enhance learning.

• Lightboard video lectures and synchronous instruction for online and face-to-face sections.
  Speaker: David Long, Flathead Valley Community College

• Enhancing student understanding by developing an animation of the dynamic process showing how polar and nonpolar molecules are physically separated on a gas chromatograph column.
  Speaker: Dan Casmier, Great Falls College Montana State University

• Nurse Aide: A support for patients in hospice and their families.
  Speaker: Cathy Wagner, Red Rocks Community College

10:00 – 10:15 am  Break

10:15 – 11:15 am  PhET Interactive Simulations
The PhET Interactive Simulations project at the University of Colorado Boulder is one of two winners of the 2014 Wharton-QS Stars Reimagine Education Award. This global competition received submissions from 427 universities and enterprises from 43 countries with 21 awards judged by a panel of 25 international experts – a ‘who’s who’ of higher education. PhET has developed over 130 free, online interactive simulations for teaching and learning fundamental concepts in science and mathematics. The simulations are interactive, engaging environments in which students learn through exploration and experimentation. Using extensive research and student interviews, the PhET team of scientists, developers, and educators design simulations to emphasize the connections between real life phenomena and the underlying science and mathematics, make the invisible visible (e.g., electrons, atoms, field vectors), and utilize the visual models and representations that experts use to aid their thinking.
Here we present the scope of PhET simulation use in various educational environments, emphasizing the key design elements that foster student engagement and learning. We will discuss best practices for how the research-based design of these simulations can be used to promote productive sense-making and concept development among students.

Speaker:
Yuen-ying Carpenter, PhET Research Associate and Chemistry Lecturer, University of Colorado Boulder
11:15 am – Noon  Discussion Group: Traditional Labs, Virtual Labs, Simulations, and Lab Kits, Oh My!
There are opportunities and challenges to each of these environments for certain lab activities. Here’s an opportunity to share your insights and lessons learned in the use of these different modalities alone and in combination for specific lab activities.

Moderator:
Brenda Canine, NANSLO lab manager, GFCMSU

Noon – 1:00 pm  Lunch

1:00 – 2:00 pm  Faculty Showcase

• Building a medical laboratory technician (MLT) program for Southeast Colorado.
  Speaker: Angela Tarrant, Otero Junior College

• Virtual chemistry, from instruction to student to lab.
  Speaker: Lee Hoffman, Lake Area Technical Institute

2:00 – 3:00 pm  Peering Into the Future of Higher Education: What’s Just Around the Corner and On the Horizon?
New technologies and innovations are pushing us to transform the way we teach and students learn. Indeed, the public and policy makers are demanding that we do so. What are some of the most promising innovations being implemented today? What changes are OER, universal design, and virtual labs likely to make in allied health and science courses in the future? And what is ahead in new technology applications and collaboration opportunities that few see coming?

Speaker:
Gerry Hanley, CSU

3:00 – 3:30 pm  Closing Remarks and Reflections

Speakers:
Maria Fieth, CHEO project director, Pueblo Community College
Sue Schmidt, WICHE
Registration
To attend the workshop, please register at http://goo.gl/QqnVDL by April 16. There is no registration fee for CHEO grant participants.

Workshop Location
This workshop will be held at the SHEPC Learning Center, WICHE, first floor, 3035 Center Green Drive, Boulder, CO. For general information about this location, contact Jenny Allen, NANSLO/ CHEO administrative assistant at WICHE, 303-541-0276, or you can reach her via email at jallen@wiche.edu.

Accommodations
Please make your hotel reservations as soon as possible at the Residence Inn Boulder by calling the number provided below or register online at http://goo.gl/vp5Xhl.

For call-in reservations:
• Ask for the WICHE room block.
• The discounted rate is $169 per night plus tax for Wednesday, May 13, Thursday, May 14, and Friday, May 15 (if applicable based on flight reservations).
• The block expires on April 17 unless it fills earlier.

Make reservations early! Once the block is filled, there is no guarantee that a room will be available! Summer is a busy time in Boulder.

Address and Contact Information:
Residence Inn Boulder
3030 Center Green Drive
Boulder, CO 80301
303-449-5545 or 1-800-331-3131

Travel Options
Make the Denver International Airport (DIA) your flight destination. This airport is approximately 44 miles from Boulder. Ground Transportation: Shuttle service is available to and from DIA to Boulder. As it is a shared ride, you should plan on additional time for pickup and arrival. All common rental car companies are located at DIA. Taxi service is very expensive based on the distance from DIA to Boulder. Directions to WICHE: http://www.wiche.edu/directory/location.

Presenters & Moderators
Albert Balbon is the supervisor of distributed learning at North Island College in British Columbia, Canada. He is responsible for the planning of resources and the successful implementation and ongoing evaluation of e-learning technologies and also acts as an expert resource on issues involving e-learning technologies for faculty, staff, and administrators. Balbon has been involved with distributed learning at North Island College for over 28 years. He was recognized for his excellence with a British Columbia Innovation Award in Education and Technology in 2006 and a Canadian National Staff Excellence Award from the Association of Canadian Community Colleges in 2010. Balbon’s latest project, the Remote Web-based Science Laboratory, which can be used to deliver university-level lab exercises to students using the Internet, has garnered international attention and led to the establishment of the North American Network of Science Labs Online.
Farah Bennani is the college wide chair, online learning, for math, science, allied health, and psychology at Front Range Community College and the CHEO curriculum lead, allied health. Bennani teaches microbiology, anatomy, physiology, and general college biology for health sciences students, as well as science of biology for non-biology majors. In addition to her doctorate of science in microbiology, Bennani holds a patent for her research study for her doctorate; an advanced studies certification; a bachelor of science in animal biology and option immunology; and a degree in computer science as an analyst-programmer. She was recognized by Who’s Who Among America’s Best Teachers in 2007 and Marquis Who’s Who and Cambridge Who’s Who for Excellence in Higher Education in 2008. She received the Master Teacher Award in 2009 at Front Range Community College (CO) and the Online Faculty Award of the Year in 2010 at Community College of Denver. She is also an affiliate faculty member at Regis University in Colorado.

Dan Branan is the North American Network of Science Labs Online (NANSLO) lab director at the Colorado Community College System. He provides leadership and coordination for the many subject-area teams working on projects. Previously, he served at the U.S. Air Force Academy as an assistant professor of chemistry, co-director of the Center for Research on Learning and Teaching, and research director for the Institute for Information Technology Applications. Branan received his B.S. in chemistry from the University of South Alabama, his M.S. in inorganic chemistry from the Ohio State University, and his Ph.D. in analytical chemistry from the University of Denver.

Brenda Canine is the NANSLO lab manager at Great Falls College Montana State University in Great Falls, Montana. She has also been an adjunct instructor at GFCMSU teaching microbiology and chemistry. Before joining the NANSLO team, she was a research scientist at the McLaughlin Research Institute studying the genetics of neurodegenerative diseases. Canine holds a Ph.D. in pharmaceutical sciences, a B.S. in chemical engineering, and has experience working in private, government, and industry labs.

Yuen-ying Carpenter is a post-doctoral researcher in chemistry education with the PhET Interactive Simulations project at the University of Colorado Boulder which designs and develops free online interactive simulations for teaching and learning science and mathematics. Carpenter divides her time between designing interactive chemistry simulations and researching their use in the college classroom. She is interested in how students use simulations to communicate, and refine their ideas and practices in chemistry and applied sciences; as well as how faculty facilitation and activity design influence student simulation use. In addition, she develops faculty professional development resources and consults with college chemistry faculty on effectively incorporating simulations into their teaching practice. Prior to joining the PhET project, she completed a PhD in inorganic chemistry at Dalhousie University in Halifax, Nova Scotia, Canada.

Dan Casmier has been full time chemistry faculty and natural sciences department chair at Great Falls College, an extended campus of Montana State University, since Fall 2012. For two years prior to that, he was an adjunct instructor. He teaches face-to-face and hybrid lecture and laboratory classes in organic and general chemistry. In spring 2014, Casmier was awarded a faculty fellowship to teach organic chemistry in a “sandbox” classroom using a “flipped” learning approach. In addition to teaching, Casmier has five-years experience as a senior process engineer in the lithography area for Intel Corporation and was the recipient of several awards for his efforts to improve performance and quality in high-volume manufacturing. He holds a Ph.D. in organic chemistry from the University of Washington in Seattle, Washington and a B.S. in chemistry from Pacific Lutheran University in Tacoma, Washington.
Farnosh Family is an adjunct faculty, chemistry, for CCConline and the CHEO curriculum lead, chemistry. Family studied environmental chemistry at Columbia University as an undergraduate and got a master’s in organic chemistry from University of California, Los Angeles. She then moved to Baltimore where she joined the chemistry faculty at the Community College of Baltimore County. Family is now living in Denver where she teaches part-time for CCConline and continues to teach online for the Community College of Baltimore County.

Maria Fieth is project director for the Consortium for Healthcare Education Online (CHEO). Her previous position as project manager for a federally funded Safe Schools/Healthy Students initiative provides a strong backdrop for the U.S. Department of Labor’s Trade Adjustment Assistance Community College and Career Training round two CHEO grant work. In 2010 her work as project manager received national recognition from Kevin Jennings, U.S. Department of Education. Her work was honored by Auburn University with a national award in building exemplary schools and community partnerships. She holds a master’s degree in English and education and a master’s degree in psychodynamic counseling.

Gerard L. Hanley is the assistant vice chancellor for Academic Technology Services and the executive director of MERLOT (Multimedia Educational Resource for Learning and Online Teaching) for the California State University, Office of the Chancellor. At MERLOT, he directs the development and sustainability of an international consortium and technology strategy to provide open educational services to improve teaching and learning. At CSU, Hanley oversees the management and implementation of system wide academic technology initiatives including digital library services, course redesign with technology, and accessible technology initiatives serving CSU’s 23 campuses with over 22,000 faculty and 447,000 students.

Lee Hoffman is the assistant teaching professor at Drexel University where he is involved with the general chemistry course sequence for both chemistry and non-chemistry science majors, including students from the honors school. Previously, Hoffman was on the faculty at South Dakota State University where he participated in the instruction of chemistry for non-science, medical profession, and nursing majors. Part of his work involved instruction at Lake Area Technical Institute. Hoffman also serves on a committee advocating for chemists with disabilities which reports to the Board of Directors of the American Chemical Society (ACS). In conjunction with this committee, he is involved with a second committee focused on professional relations within ACS and is involved with Project SEED, an ACS program encouraging disadvantaged students into the chemical sciences. Hoffman holds a Ph.D. from Flinders University, South Australia, a master of science degree in chemistry from Michigan State University, and a bachelor of science in chemistry from the University of Wisconsin - La Crosse.

Sam Johnston is a research scientist for the Center for Applied Special Technology (CAST.) With funding from the Bill and Melinda Gates Foundation and in collaboration with Creative Commons (CC), Carnegie Mellon and Stanford Open Learning Initiative (LI), and the Washington State Board for Community & Technical Colleges, Johnston and her team are providing a comprehensive infrastructure support and capacity building to Department of Labor, Trade Adjustment Assistance Community College & Career Training grant recipients. The goal is to raise the baseline for community college education based on best practices including the integration of Universal Design for Learning into open education resources. She is also a researcher for a national center tasked to understand how K-12 online learning impacts the access, participation, and progress of students with disabilities. Before joining CAST, Johnston was a senior associate and distance educator at the Center for Social Innovation (c4si), serving as project director for the development of several blended learning professional development programs. In addition, she developed and pilot-tested an online simulation game designed to assist clinicians to improve their skills in motivational interviewing. Johnston has an Ed.D. in cognition and instruction, learning, and technology from Harvard Graduate School of Education, Cambridge, MA, an Ed.M. from Harvard Graduate School of Education, and a B.A. in history from McGill University, Montreal, Quebec, Canada.
David Longanecker is the president of the Western Interstate Commission for Higher Education in Boulder, Colorado. Previously he served for six years as the assistant secretary for postsecondary education at the U.S. Department of Education, developing and implementing national policy and programs that provided more than $40 billion annually in student aid and $1 billion to institutions. Prior to that, he was the state higher education executive officer (SHEEO) in Colorado and Minnesota. He was also the principal analyst for higher education for the Congressional Budget Office. Longanecker has served on numerous boards and commissions and has written extensively on a range of higher education issues. He holds an Ed.D. from Stanford University, an M.A. in student personnel work from the George Washington University, and a B.A. in sociology from Washington State University.

Kate Lormand is an adjunct faculty, biology, for CCConline and Great Falls College Montana State University, as well as the CHEO curriculum lead, biology. She has over 20 years of experience in teaching at the community college level in biology, anatomy and physiology, genetics, and botany for both majors and non-majors. She has worked at community colleges in both California and Colorado as an adjunct faculty, and her experience includes both traditional face-to-face courses and online teaching. Additionally, Lormand worked on the development of an online biology course through the Monterey Institute, writing an online text and creating the activities and learning objectives for these chapters. She has been responsible for the development of new courses, as well as the refinement of existing courses to meet evolving standards.

Jennifer McLean is an assistant professor in the department of microbiology, immunology and pathology at Colorado State University where she also received her Ph.D. Her current research efforts are focused on identifying immune correlates of protection against tuberculosis in terms of vaccine development, as well as UDL strategies in the classroom. Courses she has taught include general microbiology, immunology, immunology laboratory, survey of microbiology, microbial biology laboratory, and freshman microbiology seminar. Teaching awards include the Provost’s N. Preston Davis Award for Instructional Innovation, Innovative Instructional Methodology Award in Undergraduate Education, and the Dr. Blanche M. Hughes Distinguished Faculty Staff Award.

Paul Stacey is associate director of global learning for Creative Commons where he helps creators, faculty, students, librarians, and the public generate a global public commons of knowledge and culture. This work builds on decades of experience leading adoption and use of online learning and educational technology in higher education and corporate training. Prior to joining Creative Commons, Stacey led open educational resource (OER) and professional development initiatives across all the colleges and universities in British Columbia, Canada.

Angela Tarrant has been a faculty member at Otero Junior College since the fall of 2013. She teaches many of the medical laboratory technician (MLT) classes and manages the clinical internships for those students. Prior to working at OJC, she worked in the clinical laboratory for over 25 years both as a generalist and a microbiologist. She has worked in hospitals ranging from 20 to 1000 beds. She also taught phlebotomy at Canadian Valley Vocational Technical School in El Reno, OK and microbiology and parasitology to the medical laboratory science (MLS) students at Parkview Medical Center. She holds a bachelor of science degree in biology and in medical technology from Southwestern Oklahoma State University in Weatherford, OK. She obtained her specialty in microbiology from the American Society for Clinical Pathology in 2013.

Cathy Wagner works with Hospice Analytics, a hospice business intelligence company, and serves as a part-time faculty at Red Rocks Community College where she developed a hybrid curriculum for the nurse aide program for students studying hospice and palliative care. Wagner has been involved with hospice since 1984, serving in educational and/or in executive management roles. She has also been very involved with national and statewide hospice committees and boards of directors. Wagner received an M.B.A. in 1998, a master's degree in nursing in 1984, and her R.N. in 1981. She is a certified hospice and palliative nurse.
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For more information, please contact:
Sue Schmidt, NANSLO/CHEO Project Coordinator
Western Interstate Commission for Higher Education
3035 Center Green Drive, Suite 200, Boulder, CO 80301-2204
sschmidt@wiche.edu (303) 541-0220
www.wiche.edu/nanslo