Interface 2015

Critical Reflection in Action

Thursday, April 23rd, 8:30 am — 3:30 pm,
Straughn IFAS Extension Professional Development Center,
Gainesville, FL

http://interface.at.ufl.edu/

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Interface 2015 is sponsored by the University of Florida's Office of Faculty Development and Teaching Excellence in partnership with the Warrington College of Business Administration, The School of Forest Resources and Conservation, Distance and Continuing Education and Pearson Learning.

INTERFACE *2015*

Critical Reflection in Action

A recent article from the Washington Post decries the manner in which students are currently educated and states that "[t]he best skill that students can learn in college is actually the ability to learn." Whether you teach, build, support, or take courses, the sessions at Interface will provide informative and relevant presentations, as well as opportunities to talk with others from across the UF campus.

The reflective practitioner values the "bigger picture" and the relationship between learning activities, courses, academic programs, and past and future life experiences and plans. The purpose of Interface is to look through the lenses of quantitative and qualitative methods and use these perspectives for reflection on practice. This process has a great deal of ambiguity; there is often no one right answer or solution for everyone. Rather, the intent of Interface is to spark ideas and foster discussion and conversation. Together, we will critically reflect on our own beliefs and actions, and create opportunities for growth, in teaching and learning.

The complete schedule and recordings of the event will be available online: http://interface.at.ufl.edu

KEYNOTE

Flat Space, Deep Learning

ERIC MAZUR, PH.D.

The teaching of physics to engineering students has remained stagnant for close to a century. In this novel team-based, project-based approach, we break the mold by giving students ownership of their learning. This new course has no standard lectures or exams, yet students' conceptual gains are significantly greater than those obtained in traditional courses. The course blends six best practices to deliver a learning experience that helps students develop important skills, including communication, estimation, problem solving, and team skills, in addition to a solid conceptual understanding of physics. This showcase will discuss the course philosophy and pedagogical approach and participants will take part in a new form of collaborative assessment.

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Welcome & Online Excellence Awards Presentation

Presented by Jennifer Smith, Director, Office of Faculty Development and Teaching Excellence

BSC2009L Laboratory in Biological Sciences
- Catalina Pimiento, Instructor
- Kent Vliet, Ph.D., Instructor
- Ashley Weser, Instructional Designer

ENT4934 Social Entrepreneurship
- Kristin Joos, Ph.D., Instructor
- Tawnya Means, Ph.D., Instructional Designer
- Jonathan Brown, Video Production
- Daniel Ypsilanti, Graphic Designer

HUN2201 Fundamentals of Human Nutrition
- Kristina von Castel-Roberts, Ph.D., Instructor
- William Wildberger, Instructional Designer

CHM1025 Introduction to General Chemistry
- Melanie Veige, Instructor
- Phillip J. Brucat, Ph.D., Instructor
- John Mitchell, Ph.D., Instructor

VME4012 Aquatic Animal Conservation Issues
- Iske Larkin, Ph.D., Instructor
- Patrick Larkin, Ph.D., Instructor
- Amanda Ardente, D.V.M., Instructor
- Heather Maness, Instructional Designer

Coursera Global Students Introduction to U.S. Law
- Alyson Flournoy, J.D., Instructor
- Pedro Malavet, J.D., Instructor
- Claire Germain, Instructor
- Lyrissa Lidsky, J.D., Instructor
- Sharon Rush, J.D., Instructor
- Loren Turner, J.D., Instructor
- Jennifer Wondracek, J.D., Instructor
- Jeff Harrison, J.D., Ph.D., Instructor
- Kenneth Nunn, J.D., Instructor
- Christina Lopez, Teaching Assistant
- William Wildberger, Instructional Designer
- Brian Schilling, Instructional Designer
- Leonardo Latorre, Instructional Designer

Special Thanks To

The Interface Planning Committee:

Tawnya Means, Ph.D. (Chair), Teri Balser, Ph.D., Randy Graff, Ph.D., Megan Mocko, Brian Marchman, Ph.D., Rhiannon Pollard, Jennifer Smith

The Online Education Excellence Awards Selection Committee

Jennifer Smith (Chair), Charkarra Anderson-Lewis, Ph.D., Pasha Antonenko, Ph.D., Fiona Barnes, Ph.D., Trevor Bopp, Ph.D., Ron Cave, Ph.D., Phyllis Henderson, Emma Humphries, Ph.D., Brian Marchman, Ph.D., Naibi Mariñas Rodríguez, Ph.D., Eric Olson, Mike Sagas, Ph.D., Terry G Spencer, D.V.M, MEd, Suzanne Sneed- Murphy, Ph.D.

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Online Critical Thinking: Employing Creative Techniques across Disciplines

William Wildberger

William Wildberger is an instructional designer at UF's Distance and Continuing Education Department with over ten years of experience across business, non-profit, and university contexts. He is currently a graduate student in the Educational Technology program at UF's College of Education. Research interests include MOOCs, the relationship between competition, creativity and critical thinking, and the role of the subconscious in learning.

While the calls for critical thinking are abundant, successfully implementing activities that harness this capacity can be a challenge. This presentation will review two critical thinking activities in the course Healing with the Arts: journaling and a final project. In addition, we will explore a cross-discipline example of web 2.0 technologies in the class. In conclusion, we will discuss grading these projects, with a specific focus on the benefits of peer grading.

Applying Team-based Learning to Physical Science

Rachel Walters Ph.D.

Rachel Walters gained a bachelor of science in geology from the University of Edinburgh in 2005 and a Ph.D in geochemistry from Trinity College Dublin in 2010. Four years ago she started a post-doc in the Department of Geological Sciences at UF studying the geochemistry of seafloor lavas to investigate how the Earth's mantle melts beneath mid-ocean ridges. Rachel has always loved sharing her knowledge and skills with others. During her time as a post-doc she has assisted with a variety of community outreach and student professional development with her Department. Rachel started teaching her first course, Principles of Mineralogy, in Fall 2014. Following a UF workshop on Team-Based Learning (TBL) given by Dr. Larry Michelson, Rachel decided to re-develop the mineralogy lecture course into the TBL format with great success. She has continued to use TBL for Historical Geology this Spring.

In the 2014-15 academic year, Team-Based Learning (TBL) was applied to two geological sciences courses. TBL is a well-researched flipped classroom model that promotes active student learning in a permanent team. However, it has rarely been used in geology. TBL provides a framework in which students can gain life-long skills such as independent learning and communication in addition to content-based learning objectives.

One of the key challenges to overcome in making a change to the learning environment is getting student buy-in. Student frustration is usually a result of differing expectations. Students expect a passive learning environment and are out of their comfort zone when there is peer accountability for active participation. Therefore, motives and expectations should be transparent. A zero-stakes introductory experience is an important part of TBL orientation. Guiding students carefully through the first class and first unit is vital in making a successful TBL transition**.**

Team Learning in Developing a MOOC (OEEA)

Alyson Flournoy,
Pedro Malavet,
Kenneth Nunn,
Sharon Rush,
& William Wildberger

A team of six faculty members, two librarians, and several Student Teaching Assistants came together to develop and offer the College of Law's first MOOC: The Global Student's Introduction to U.S. Law. The group's shared goals included learning about online education, providing access to free education for a global audience as a public service, and promoting an existing on-campus masters program for lawyers trained outside the U.S. that the College offers. The benefits of the team approach proved significant. Sharing the workload lowered the entry barriers for faculty interested in getting some exposure to distance education. The course offered students a diversity of teaching styles. The course design was the result of a collaboration which benefited from diverse perspectives. And the course created an occasion for faculty who often work independently to learn both from and about each other as they pursued a common objective. Three of the faculty from the MOOC team and the Academic Designer who provided essential guidance and support at every stage of the process will discuss some of what they learned from the experience of developing and offering this course.

Engagement and Community in Human Nutrition (OEEA)

Kristina von Castel-Roberts, Ph.D.

Kristina von Castel-Roberts has a PhD in Human Nutrition from the University of Florida focusing on vitamin B12 nutrition and metabolism. She is currently conducting obesity research as well as teaching nutrition. Her teaching focuses on basic nutrition, oral health nutrition for dentistry, and nutrition in health care and public health.

Creating a sense of community where students are engaged by interacting with the instructor, each other, and the material was a key component of HUN2201 Fundamentals of Human Nutrition. The class used Facebook, video discussion and personal greetings from the instructor. A comprehensive Diet Analysis Project was divided into several parts that takes key nutritional concepts from the classroom and into the student's life. Here, students use software to track their diet over a period of time and analyze their findings.

Talk Nerdy to Me

Melissa Johnson Ph.D.
& Kristy Spear

Melissa Johnson paved her path to nerdom when she attended computer camp at East Carolina University back in the 3rd grade. She followed that experience with several spelling bee championships, a stint in marching band, and performances in several high school musicals. When she was younger, she determined your cool points based upon whether or not you listened to Dolly Parton. Currently, she is in a committed relationship with data-filled spreadsheets.

Kristy Spear embraced her inner nerd from a young age. When not in headgear, you could find her behind stacks of books at the local library or in band practice. Her first aparvvtment was a true testament to who she is- Star Wars Legos suspended from the ceiling, action figures in every room, 6 prominently displayed video game consoles, and a coffee table covered in graphic novels- batman of course. Still question her nerdiness? Talk to one of her two cats. She does. Melissa and Kristy are affiliated with the UF Honors Program

Are you nerdy by nature? Does your Pokemon bring all the nerds to the yard? Do you like big books, and you cannot lie? If so, join us as we explore a critical examination of nerd life through the Honors Talk Nerdy to Me course: how we are represented in popular culture; the evolution of nerds through time; and a self-exploration of nerdiness in college. You will learn how students got up close and personal with their own nerd experiences through reflection, creativity, and performance. Willingness to let your own nerd flag fly is a prerequisite for participating in this session!

Can Chemistry be better online than face-to-face? (O&A)

Melanie Veige

Melanie Veige (M.Sc. Chemistry, University of British Columbia) joined UF in 2012. She taught introductory and general chemistry as an adjunct instructor at Santa Fe College (2007-2012) and was a laboratory chemist in industry at Millennium Pharmaceuticals (Cambridge, MA) prior to that time. In addition to her work with CHM1025, she has developed two other online chemistry classes (CHM1020, CHM1030) and is hard at work on a third.

The Introduction to General Chemistry course (CHM1025) has undergone multiple revisions during the past five years. It has been optimized by direct statistical comparison to a reference f2f course. Every aspect of the course has been critically evaluated. In addition to quizzes, homework and discussion, peer review is used in conjunction with interactive simulations and video-based chemistry experiments.

Critical Thinking in Aquatic Animal Conservation (OE&A)

Iske Larkin, Ph.D. and Heather Maness

Iske Larkin is currently Education Coordinator and Lecturer in the Aquatic Animal Health Program (AAH) within the University of Florida, College of Veterinary Medicine. She received her PhD in Physiological Sciences from the University of Florida, College of Veterinary Medicine in 2000. She has worked for AAH since its inception in 2000 and began her faculty role as Education Coordinator in 2005. She developed and coordinates the Aquatic Animal Medicine Certificate which offers specialized and directed training to UF DVM students within their veterinary curriculum on health aspects from invertebrates and fish to megavertebrates.

The Introduction to General Chemistry course (CHM1025) has undergone multiple revisions during the past five years. It has been optimized by direct statistical comparison to a reference f2f course. Every aspect of the course has been critically evaluated. In addition to quizzes, homework and discussion, peer review is used in conjunction with interactive simulations and video-based chemistry experiments.

Layered Critical Reflection by Ecology Graduate Students to Develop Their Scientific Philosophies

Bill Lindberg Ph.D.

Bill Lindberg Ph.D. is an Associate Professor and Graduate Coordinator in the Fisheries and Aquatic Sciences Program, School of Forest Resources and Conservation, IFAS, at the University of Florida. His research on habitat selection, essential fish habitat, habitat enhancement and spatial dynamics within reef fisheries populations has generated 109 journal articles, book chapters and technical papers and more than $5 million in contracts and grants.

Ecology, as a scientific discipline, has a history of intractable debates, with philosophical differences at their core. Furthermore, students drawn to ecology are often motivated by strongly held values about nature. Consequently, FAS 5901 Scientific Thinking in Ecology is designed to help students critically develop foundations for their professional philosophies, by layering reflective thinking throughout the semester. The instructor is merely a guide in this development. The students individually wrestle with assigned weekly readings, guided by sets of key questions and the instructor's weekly blog for context. Each week the group discusses the reading, guided by Socratic questioning and a framework for critical thinking. Within days of each discussion, students write their own weekly blogs reflecting their integration of concepts just covered. Three brief essays at transitions in reading themes encourage more comprehensive reflection. All writings are posted in Canvas to foster peer-to-peer dialogue and to inform the Socratic questioning.