

2010 BRIGHT IDEAS CONFERENCE

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BRIGHT IDEAS CONFERENCE



**A showcase spotlighting faculty
research, scholarship and artistry**

**Thursday, April 8, 2010
Pattillo Student Center, 2nd Floor
Stephen F. Austin State University**

SCHEDULE OF EVENTS

Research Posters and Scholarly Exhibits

10:00 a.m. - 5:00 p.m. Grand Ballroom
Featuring more than 100 posters & exhibits

Opening Session & Speaker Award Presentations

12 noon - 1:00 p.m. Twilight Ballroom
Reception at 11:30 a.m.

Spotlight Presentations

1:00 p.m. - 4:30 p.m. Regents' Suites A & B

<i>Spotlight Speaker</i>	<i>Regents'</i>	<i>Time</i>
Ryan Phelps <i>Nelson Rusche College of Business</i>	B	1:00- 1:25 p.m.
Odutayo O. Odunuga <i>College of Sciences & Mathematics</i>	A	1:30- 1:55 p.m.
Erin Brown <i>College of Forestry & Agriculture</i>	B	2:00- 2:25 p.m.
Marc Guidry & Charles Jones <i>College of Liberal & Applied Arts</i>	A	2:30- 2:55 p.m.
M.E. McWilliams <i>Steen Library</i>	B	3:00- 3:25 p.m.
Dean Kniss & DawnElla Rust <i>College of Education</i>	A	3:30- 3:55 p.m.
John Cotner <i>College of Fine Arts</i>	B	4:00- 4:25 p.m.

Free Admission - Cole Auditorium

7:30 p.m.

Costa Rica's Minister of Culture, Manual Obregón
Performing *Symbiosis: piano & rainforest*

Monitoring Eimeria maxima, tenella and acervulina in challenged broilers treated with coccidiostat using real-time PCR

Khamadaliev R, Martynova-Van Kley A, Nalian A, Bray J

Productivity and extent of Maxon formation, Bell and Knox Counties, KY

Logan B, Maxey B, Brown W

Induction of programmed cell death in colon cancer cells by doxorubicin

Mall S, Clack B

A model for identifying and intervening with at-risk nursing students

Miller G, Putnam T, Glymph D

High throughput sequencing provides insight on diversity of intestinal microflora in broilers

Monoharan M, Martynova-Van Kley A, Nalian A, Bray J

Expression, purification and biochemical characterization of a gene implicated in dwarfism and polydacty

Odunuga O, Monsivais A

Experimental and DFT investigation of the structure and infrared vibrational spectra of 9, 10-dihydrobenzo(a)pyren-7(8H)-one and 7,8,9,10-tetrahydrobenzo(a)pyrene

Onchoke K, Nolan A, Parks M

Affect of seasonal changes in Arbuscular mycorrhizal communities

Patnaik S, Martynova-Van Kley A, Van Kley J

Nursing leadership and ROTC: a collaborative teaching strategy

Powell R, Migl K

Wetland vegetation changes at Caddo Lake, Texas, resulting from multiple exotic plant invasions

Van Kley J

Cloning of the enzyme responsible for damaging wheat in Syria

Yendamuri R, Clack B



POSTERS & EXHIBITS

The gods are coming! Globalization, religion and religiosity in the United States
Segady T

The communicative constitution of organizational practices in changing environments: contributions of practice-based CCO literature to questions of sustainability
Spradley R

Why local weather conditions are a slow indicator of climate change
Szafran B, Williams J, Roth J

Representing the Ralph W. Steen Library

Videos for classes (VFC)
Reynolds R

Connecting with distance education students: the embedded librarian
Wright B, Oswald T, Turnage M

Representing the College of Sciences & Mathematics

Windbelt, cheap generator alternative, set to power third world
Bruton D, Myers E

The Gauss radon transform
Chang C, Becnel J

Combustion analysis of fatty acid alkyl ester mixtures
Franks R, Molino R, Frantzen A

The pretreatment of montmorillonite clays: step-by-step effects of treatment
Frantzen A, Perry J

Characterization of black shale using DSC and combustion calorimetry
Frantzen A, Poe C

The evolution of facial stripes in New World pitvipers: testing ecophysiological and signaling hypotheses
Kwiatkowski M, Burt B

SPOTLIGHT SPEAKERS



Ryan Phelps, Ph.D.
Assistant Professor of Economics & Finance
Nelson Rusche College of Business

1:00 - 1:25 p.m.
Regents' Suite B

Bringing data to life in the classroom

Gapminder World (<http://www.gapminder.org/world>) is a free, simple and engaging Internet-based resource for illustrating relationships between a host of variables at national and sub-national levels. The format instantly and intuitively conveys a great deal of information. Gapminder World is an online motion chart. A motion chart displays the relationship between two variables and animates the changes in that relationship over time. This tool can be readily used to energize students' natural curiosity regarding real world events, converting it into genuine motivation to understand content in a variety of courses. Faculty, whose courses may not relate to the many variables that can be illustrated in Gapminder World, will also learn how to build custom motion charts using course relevant data and Google Documents spreadsheets. I will demonstrate both the use of Gapminder World towards motivating course content and the process of developing a custom motion chart.



Odutayo O. Odunuga, Ph.D.
Assistant Professor of Chemistry
College of Sciences and Mathematics

1:30 - 1:55 p.m.
Regents' Suite A

Expression, purification and biochemical characterization of a gene implicated in dwarfism and polydactyly

Ellis van Creveld (EvC) syndrome is a rare human genetic disorder resulting from abnormal bone and muscle development, and is characterized by mild short stature, postaxial polydactyly, dysplastic nail and teeth and heart defects. Genetic studies demonstrated that mutations in a gene known as EvC caused phenotypes that were clinically similar to EvC syndrome. The EvC gene encodes a novel protein with putative transmembrane, nuclear localization signal, and leucine-zipper structures; otherwise it shares no major similarities with other proteins to give clues to its functions. Recent experiments using a mouse model suggested that EvC is a regulator of the hedgehog signal transduction pathway that controls the development and growth of bones during embryogenesis. Bioinformatics analysis in our laboratory indicated the presence of a putative enzymatic region in the protein sequence. As a first step towards elucidating the function of the EvC protein, we have successfully cloned the EvC genes that encode fragments and full-length protein products into bacterial protein expression vectors. We have expressed these proteins and are developing strategies to isolate and purify them to homogeneity for structural and enzymatic studies. Our studies provide the first attempt to unravel the functions of this gene using biochemical techniques.

SPOTLIGHT SPEAKERS



Erin G. Brown, Ph.D.
Assistant Professor of Animal Science
*Arthur Temple College of Forestry
& Agriculture*

2:00 - 2:25 p.m.
Regents' Suite B

Influence of weaning strategy on animal welfare

The prevailing method of weaning livestock involves abrupt separation from the dam resulting in change in feed and living environment. These changes result in behavioral and physiological responses indicative of distress that are unfavorable to livestock production and animal welfare. Dams naturally wean offspring by reducing nursing. Newly weaned animals will have an increase in vocalization and pacing while spending less time eating, drinking and resting. Weaning stress can also be associated with attenuation of immune function and an increase in disease susceptibility. Although abrupt weaning in livestock has occurred for many years, evidence suggests that other weaning strategies should be examined. A more “natural” approach to weaning is needed. In one study, three alternative weaning strategies to abrupt separation were evaluated in beef calves. Beef calves were fitted with anti-suckling devices prior to weaning and/or after weaning they were placed in a pasture adjacent to their dams. In a second study, piglets were temporarily separated from their dams each day for a week prior to weaning. The studies evaluated growth and immune function in the neonate and dam. Results suggest that there are alternative weaning strategies that would promote favorable livestock production and animal welfare.



Marc Guidry, Ph.D.
Associate Professor of English
Charles Jones, Ph.D.
Professor of Art
College of Liberal & Applied Arts

2:30 - 2:55 p.m.
Regents' Suite A

The Knight's Tale book or Chaucer at SFA

Slides will be presented of the illustrated and hand-crafted edition of Chaucer's *Knight's Tale*, forthcoming from the LaNana Creek Press. They will compare it to previous illustrated editions, such as the famous 19th c. Kelmscott *Chaucer* printed by William Morris, and discuss how their edition reinterprets the tale for a 21st century audience. In particular, they will demonstrate how their edition engages the dark undercurrents of the narrative anew. Written in the 1380s during a particularly demoralizing phase for England of the Hundred Years' War with France, the *Knight's Tale* reflects on the chivalric tendency to turn love into war and war into a way of life. Nevertheless, prior illustrated editions have glamorized its subject matter, depicting war as a romantic extension of the courtier-soldier's love life. In contrast, Jones's wood prints, done in conjunction with Guidry's commentary on the tale, depict the most disturbing images of love and war in Chaucer's story in the gritty and naturalistic light in which the poet describes them. They will also present a sample of passages of the tale performed by Guidry in Chaucer's Middle English dialect for a CD accompanying the book. A trade edition of the book is forthcoming from the SFASU Press, and Jones and Guidry will present on their book at the International Medieval Congress in Leeds, England this July.

Evaluating forest volume estimation at Barksdale Air Force Base using LiDAR and multispectral imagery

Unger D, Brooks R, Williams H, Hung I

Landscape ecological processes of constructed wetlands

Ward W, McBroom M, Kulhavy D

Evaluation of rapid methods for determining lime requirement using east Texas soils

Young L, Dlamini H

Research capabilities of the SFASU Soil, Plant & Water Analysis Laboratory

Young L, Weatherford W

Development of an ArcGIS extension: urban watershed management assistance

Zhang Y, Hung I, Farrish K

Effects of salt sources and rates on three Taxodium genotypes

Zhou L, Yunlong Y, Creech D, Farrish K, Kulhavy D, Young, L

Representing the College of Liberal & Applied Arts

Guide to east Texas gravestones

Beisel P

Ancient Maya food processing as evident through grater bowls

Cecil L

From the big screen to the big picture: connecting beginning and advanced language

Johnston J

Building social capital in rural communities through service learning

Oliphant E, Templeman S, Cordova W, Belanger K, Galan R

Massaging the message? Editorial commentary on terrorism in the U.S., India, and Scotland

Roy S

Quoting the unspoken: an analysis of quotations in spoken discourse

Sams J

POSTERS & EXHIBITS

Restoring the role of fire in the longleaf pine ecosystem of Upland Island Wilderness

Oswald B, McWhorter I, Whisenant P

Nacogdoches Fire Department: service call location and density analysis

Page K, Westbrook J, Hung I

Life at the edge: forest pathology as art

Rozic M, Kulhavy D, Peterson C, Robinson S

Nesting ecology and hatchling survival of American alligators in inland wetlands of east Texas

Saalfeld D, Conway W, Calkins G

Snowy Plover nest site selection in saline lakes of the Southern High Plains of Texas

Saalfeld S, Conway W, Haukos D, Johnson W

Ecological importance of Spicebush in the landscape

Schroeder A, Adkins J, Kulhavy D

Subpopulation structure and genetic diversity in Eastern Wild Turkeys in east Texas

Seidel S, Comer C, Conway W

Changing roles to change the nature of future natural resource professionals: providing tools to teach the public about fire

Stephens-Williams P, Kulhavy D, Stafford K, Jones J, Oswald B

*Habitat associations of the Rafinesque's big-eared bat (*Corynorhinus rafinesquii*) and the Southeastern Myotis (*Myotis austroriparius*) in northeast Texas*

Stuemke L, Comer C

Natural gas development compared with silviculture at the Alto experimental watersheds in east Texas

Thomas T, McBroom M

Estimating the value of non-market services: visits to the SFASU gardens

Thompson L, Green L

Advanced digital image processing techniques for natural resource assessment at Stephen F. Austin State University

Unger D



M.E. McWilliams

Academic Assistance and Resource Center
(AARC), Director
Ralph W. Steen Library

3:00 – 3:25 p.m.
Regents' Suite B

Kiss Kiss: Championing faculty-student interaction out of class

The research confirms that student interaction with faculty, particularly interaction out of class, is perhaps more important than any other component to a multitude of desired student outcomes including student success, satisfaction, and retention. The most commonly used measure of an institution's success is improved retention. Our strategic plan calls for an increase of 70% freshmen retained for one year by 2012. The Academic Assistance Center (AARC) contributes to retention efforts with workshops and a variety of tutoring venues for our students. A university's learning center plays a leading role in creating a positive first-year experience; nonetheless, the AARC concedes that faculty-student interaction is the number one resource for retention. Therefore, AARC staff is unabashedly "kissing up" to our faculty. Our goal is to support and recognize the interaction between students and faculty out of class, thereby concurrently championing our university's strategic initiative #2: "Improve faculty . . . recognition, and support" (SFASU, 2008). This presentation will explore the value and nature of faculty-student interaction out of class and share some of the initiatives of our learning center that have stimulated this critical relationship.



Dean Kniss, Ph.D.

Assistant Professor of
Health Science

DawnElla M. Rust, Ed.D.

Professor of Health Science

James I. Perkins College of Education

3:30 - 3:55 p.m.
Regents' Suite A

Collaboration to ACHIEVE a healthier Nacogdoches

The presentation will introduce the audience to Action Communities for Health, Innovation & EnVironmental Change (ACHIEVE). ACHIEVE is an initiative funded by the Centers for Disease Control and Prevention's Healthy Communities Program and seeks to build local partnerships that will drive policy and environmental change to improve health. The ACHIEVE process begins with a community assessment utilizing a research based tool. The Change Tool investigates health policy components already in place and identifies key areas for improvement in a variety of domains within the defined community. Through an established coalition of community representatives, the ACHIEVE process facilitates changes in policy and the physical environment. It is through the ACHIEVE process that policy and environmental changes seek to improve the overall health of the community. In the past, health promotion and intervention often focused on individual behavior change in order to elicit healthier outcomes. While this practice is still a major component of health intervention, more attention is being focused on the built environment and policy promotion. As a part of the Nacogdoches community, Health Science faculty members have taken an active role in the Healthy Nacogdoches Coalition and provide support in a variety of ways.

SPOTLIGHT SPEAKERS



John S. Cotner, Ph.D.
Assistant Professor of Music Theory
College of Fine Arts

4:00 - 4:25 p.m.
Regents' Suite B

***Teaching online graduate music theory:
special problems and new solutions***

In an age of deficits, budgetary cuts, and dwindling federal and state funding for higher education, increasingly institutions are relying on distance learning as a means of generating and sustaining academic programs. Despite the fact that distance education offers exciting pedagogical possibilities, the online environment itself imposes unique obstacles of both a practical and technical nature. Music, as a complex cultural artform, poses additional instructional challenges. The purpose of this presentation is to address pedagogical problems and solutions related to the design and delivery of quality online graduate music theory and analysis. First, my discourse outlines explicit challenges delivering advanced music-theoretical subject matter in an online environment. Second, I demonstrate specific ways that Camtasia screen recording, tablet PC, Skype, and Blackboard tools enable me to effectively communicate concepts and demonstrate skills with a level of precision similar to that obtained in face-to-face classroom settings. Third, I frame this presentation within the context of ongoing educational-philosophical debate concerning online instruction. My argument is two-fold: 1) In order for online courses in graduate music theory to sustain academic benchmarks, instructors are compelled to use technology which simulates a high degree of immediacy, enabling detailed communication of skills, and close interaction with students; and 2) If graduate students are going to successfully meet the requirements of an advanced degree, then these courses must address the problem of remediation through enhanced teaching methods.

POSTERS & EXHIBITS

Representing the Teaching Excellence Center

Teaching team skills in ten minutes
Bayless M, Austin T

Cross-campus collaboration: art, communication and contemporary culture and marketing
Bond L, Tubbs M, Kahla M

Using avatars to build an online community of learners
Chauvin W, Witherspoon E

Helping students reach their academic potential through effective learning
Foster P

Come to the rug
Gresham J

Historic trails analysis: the Ghost Trail of Nacogdoches
Kulhavy D, Unger D, Clanahan M, Braman D

Hurricane Rita impact on red-cockaded woodpecker clusters
Kulhavy D, Unger D, Hung I, Gonzales J

Abundance and occupancy of songbirds on post oak savannah habitat in Texas
Lundberg E, Comer C

Assessing the efficacy of MODIS satellite-derived start of growing season for jurisdictional determination of east Texas bottomland hardwood wetlands
Malone K, Williams H

Effects of organic rooting treatments on Vaccinium darrowii 'Native Blue' blueberry cuttings
Martin C, Maurer M, Creech D

Forest characteristics and large woody debris loadings in the lower Sabine River, Texas
McBroom M, Ringer M

Assessing ecological functions of bottomland hardwood wetlands using remote sensing and geographic information systems
McNamee R, Williams H, Farrish K, Hung I, Unger D

A comparison of soil and plant characteristics between abandoned natural gas drill pads and adjacent areas, Barksdale Air Force Base, Bossier City, Louisiana
Miller A, Williams H, Farrish K, Oswald B, Unger D

The Sabine River riparian area: a definition and methodology for delineation
Miller A, Williams H, McNamee R, Brown M

Avian occupancy and abundance in restored longleaf pine savannahs in east Texas
Novak L, Comer C, Conway W, Scognamillo D

Protecting San Augustine County communities from the impacts of wildfire in east Texas
Oswald B, Stafford K

POSTERS & EXHIBITS

Evaluation of sodium bisulfate toxicity in diets of broiler chickens
Bray J, Post P

Long-term effects of feeding ractopamine on reproductive performance in replacement show-type gilts
Brown E, Krebs L

Assessing LiDAR accuracy for forest measurement
Chapman J, Hung I, Unger D, Kulhavy D, Tippen J

Teacher's Conservation Institute: linking educators, kids and nature
Conway T, Kulhavy D, Shannon J, Legg M, Harris C

Distributional records of tiger beetles (Coleoptera:Cicindelidae) in saline lakes of the Southern High Plains of Texas
Conway W, Haukos D, Saalfeld S, Saalfeld D, Kulhavy D

The identification and correlation of the competitive influence of Chinese Tallow on morphological and physiological attributes of artificially regenerated hardwood species
Dailey K, Gibson L, Williams H

Estimating relative seasonal abundance of bobcats (Lynx rufus) and coyotes (Canis latrans) in east Texas using a photographic mark-recapture model
Davis A, Comer C, Conway W

Planted bur oak and pecan survival and growth in relation to canopy gap size and orientation
Gibson L, Williams H, Dailey K

Evaluation of super-stocking as a restoration approach for Eastern Wild Turkeys in east Texas
Isabelle J, Conway W, Comer C, Calkins G, Hardin J

Control and management of deep-rooted sedge in coastal prairies
King J, Conway W, Rosen D

Seed bank response by the exotic invasive deep-rooted sedge (Cyperus entrerianus) to prescribed fire in Texas coastal prairie
King J, Conway W, Rosen D, Oswald B

A forest insect alphabet book and song cycle
Kulhavy D, Jones C

Not your mother's PowerPoint
Markworth N

Service learning: a tool towards teaching excellence in social work
Oliphant E, Templeman S, Cordova W, Belanger K

Barnaga: simulation in the study of intercultural communication in the classroom
Roy S

On leaving college
Seaman M

Representing the Nelson Rusche College of Business

Gerald W. Schlieff School of Accountancy and Aeronautics
Bunn E, Holcombe C

Caution -- danger -- beware: electronic communication and social networking challenges
Clipson T, Wilson A

Exploring marketing's 'environmentally friendly' assertions
Elliott-Howard F, Grubbs J, Ballenger J

A comparison of compact robotics platforms for model teaching
Eubanks A, Strader R, Dunn D

Applications of time varying spectral analysis to examine the dynamics of equity markets
Giudici E

Random diversification
Giudici E, Ferguson A

Communicating in education and business through virtual worlds
Jennings S, Sutherland M

The local decision to ban smoking
Phelps R

Activities associated with an introductory managerial accounting course
Rogers V

POSTERS & EXHIBITS

Representing the James I. Perkins College of Education

Research update on preschool Head Start English language learning

Abel C, Becker J, Nerren J, Wilson H, Gottshall D

Comparing individual creativity to the tendencies of the ideally academic educated

Austin K

Creating political frames: the use of political theory to improve policy and practice

Ballenger J, Bush S, Porter D, Lindley C, Amonett C, Rogers L, Nichol B, Myers D, Vargas O

Examining the effectiveness of shared reading strategies within families of Hispanic pre-kindergarten students

Covington-Hasbun T

The digital divide: examining technology in the early childhood setting

Dillard E, Covington-Hasbun T

Comparison of two lower-body modes of endurance training on lower-body strength development while concurrently training

Gergley J

Hand in hand, side by side: investigating, integrating, and interacting (F^3) in science content

Gresham J, Sowards A, Welsh K

Metamotivational profiles of eating characteristics and body image in athletes

Jevas S, Kato K

Effects of bolus vs. metered rehydration rates on fluid retention and hydration efficiency using 150% fluid replacement

Jones E, Graham J, Newcomb T, Frischman N

Transition to Teaching scholarship opportunity

Porter S, Corley J, Crenshaw J

Interpreting the Alaska National Park experience: an exploration of adventure and authenticity as key components of an interpretive marketing strategy

Runnels C, Coble T

Texas superintendent perceptions: principals as curriculum leaders

Stewart S, Tareilo J

The caged bird finally sings

Tareilo J, Black L

Representing the College of Fine Arts

Piano evolution: expanding piano pedagogical possibilities with the Yamaha

Disklavier piano

Ajero M

Musico-textual relationships in Lee Hoiby's "Three French Songs"

LaGraff S, Petti R

The armchair grand tour

Marquis A

How to use YouTube in your classroom

Midgley H

Pedimeters: measuring femininity by the foot

Rosenfeld J, Finkenberg J

Open source, do-it-yourself, hacker, and maker-based interactive art

Tubbs M

Long distance (musical) relationships

Utley B

Representing the Arthur Temple College of Forestry & Agriculture

Effects of rofenaid 40 and tylan 40 on immunity development in broiler chickens vaccinated with a coccidiosis vaccine

Bray J, Post P

Evaluation of multi-aged coccidiosis vaccine serials on immunogenicity in broilers challenged with Eimeria spp.

Bray J, Post P