

2008 Bright Ideas Conference

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Office of Research & Sponsored Programs
P.O. Box 13024—Liberal Arts North, 421
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BRIGHT IDEAS CONFERENCE



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

**Friday, April 25, 2008
Pattillo Student Center, 2nd Floor
Stephen F. Austin State University**

Schedule of Events

Research Posters and Scholarly Exhibits

9:30 a.m. - 4:30 p.m.

Grand Ballroom & Regents Suites
Featuring more than 120 faculty exhibits

Spotlight Presentations

9 a.m. - 4 p.m.

Pattillo Student Center Theater

9 a.m. - Dr. Mitzi Perritt
9:45 a.m. - Dr. Leslie Cecil
10:30 a.m. - Dr. Warren Conway
11:15 a.m. - Brad Maule, William Arscott
and Dr. Stephen Lias
1:30 p.m. - Dr. Alyx Frantzen
2:30 p.m. - Dr. Deborah DuFrene
3:30 p.m. - Rachel Galan

Special Exhibits

9:30 a.m. - 4:30 p.m.

Regents Suite B

Featuring art and other special exhibits

Special Fine Arts Presentations

Pattillo Student Center Theater

SFA Percussion Ensemble

1 - 1:30 p.m.

SFA Theatre Original Cast

4 - 4:30 p.m.



Isolation, Characterization, and Purification of Proly Endopeptidase from Eurygaster integriceps

C. Darkoh, M. El Bouhssini & B. Clack

Microbial Population Analysis Using DGGE as a Tool for Ecological Classification

A. Martynova-Van Kley, J. E. Van Kley, A. Nalian, D. Fakhretdinova & E. Kurmaeva

Nursing Students in the Prison: Teaching nursing in a correctional facility

C. Harper, D. Ellisor, A. Hermann, L. Robinson & A. Starling

Optical Spectroscopic Studies of Mononitrated Benzo(a)pyrenes

K. K. Onchoke

Sky Glow Study of Nacogdoches County

N. L. Markworth & B. Quarles

Solids of Revolution about Continuous Curves

J. Becnel & H. Marquis

The Cation Exchange Capacity of SCA-3: A reevaluation

C. L. Chang, J. H. Cole & A. S. Frantzen

The Preparation, Decomposition, and Voltammetric Behavior of Sodium Ferrate (IRON VI) in Aqueous Alkaline Solutions

J. Fowler & W. C. Boring

Thermodynamic Studies of Standard Montmorillonite Clays

K. M. Baugh & A. S. Frantzen

Utilizing Seismic Exploration Data to Estimate Hydrocarbon Potential in the South Caspian Basin Fields

W. Brown & N. D. Huseynova



Exhibitors

TIDES Collaborations: Creation of a biology digital research collection
E. Lopez

TIDES Digital Experiences
S. Bibby & K. Tolar

TIDES (Teaching, Images, and Digital Experiences) Teaching Tools and Images
S. Clarke

TIDES 2.0
C. Hennessey

Representing the College of Sciences & Mathematics

A Backyard Plant with Anticancer Properties on Human Colon Carcinoma Cells in Culture
B. Clack, C. Walker, C. Alla & S. George

An Ecological Classification System for the National Forests and Adjacent Areas of the West Gulf Coastal Plain
J. E. Van Kley, R. L. Turner, R. E. Evans & L. S. Smith

Combustion of Organo-clays: Steric considerations
J. N. Perrin & A. S. Frantzen

Confidence Intervals from Fallible Data
K. E. Riggs

Construction of a Tunable Organic Dye Laser
W. L. Trikosko & B. G. Hilton

Development of Real-time PCR Assay for Quantification of Avian Eimeria Oocysts
A. Martynova-Van Kley, A. Nalian, I. Teplova & M. Maksimova

Experimental and Density Functional Theoretical Study of Mono-Nitrated Fluoranthenes: Correlations to mutagenicity
K. K. Onchoke & M. Parks

Fuel Powered Artificial Muscles (FPAM)
R. Friedfeld

Intertwining Teaching and Research: Enzymatic synthesis
M. R. Harris, L. West, C. Cornelius & E. Rigbsby

Spotlight Speakers



Mitzi Perritt, Ph.D.
Professor of Human Sciences
James I. Perkins College of Education

9 - 9:30 a.m.
PSC Theater

The Effect of Light Source and Direction on the Cognitive Performance of College Students with Attention Deficit Hyperactivity Disorder

Thoughtful research-based design can provide environments which facilitate academic performance. This study investigated the effect of light source and direction on accuracy and speed of cognitive performance and number of off-task behaviors in college students with ADHD. A purposive sample of 31 students read eight reading passages each and answered comprehension questions. Testing occurred in four testing rooms, each outfitted with two different lighting scenes, yielding a total of eight testing situations. Based on an analysis of variance repeated measures design, results indicated higher test scores when students read by compact fluorescent and halogen sources. Longest times and attention spans occurred with fluorescent parabolic and halogen. Full-spectrum lighting produced fewer off-task behaviors. Research findings may assist designers, healthcare professionals, educators, and families in providing supportive learning and work environments for students coping with ADHD.



Leslie G. Cecil, Ph.D.
Assistant Professor of Sociology
College of Liberal & Applied Arts

9:45 - 10:15 a.m.
PSC Theater

Inter-regional Socioeconomic and Sociopolitical Relations of the Postclassic Maya of North Central Yucatán, México, Belize, and Guatemala

The Maya lowlands, the heartland of Maya civilization in the Classic period (ca. A.D. 200 - 900), encompasses the modern countries of north-central México, Belize, and Guatemala. It is here where Maya culture developed and flourished and where anthropologists concentrated their research, making it the best known and most widely studied period of Maya culture. In contrast, the Postclassic period (ca. A.D. 1000-1600) has long been characterized as one of decline, decadence, and depopulation. For the first time in the Americas, Cecil, in collaboration with an international, multidisciplinary research team funded by the National Science Foundation, is examining pottery that was used in rituals that (re)enacted collective memories and transmitted messages of identity. A unique combination of techniques - stylistic, technological (petrographic) analysis, and chemical analysis - will provide data that contribute new insights into the complexity of Postclassic Maya social, economic, and ritual life.

Spotlight Speakers

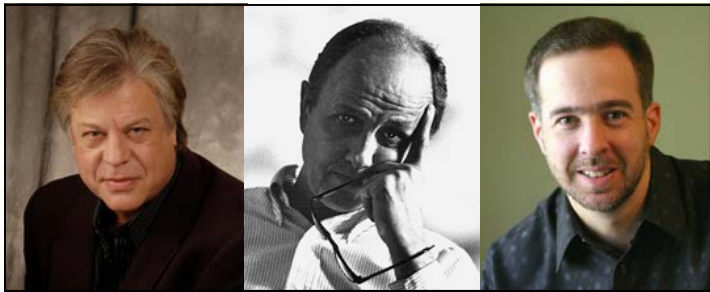


Warren C. Conway, Ph.D.
Associate Professor of Wildlife Management
Arthur Temple College of Forestry
& Agriculture

10:30 - 11 a.m.
PSC Theater

***Wildlife Management Research at SFA:
The Simon and Louise Henderson Wildlife Research Institute***

SFA's wildlife management program gained momentum in the 1970s and 1980s, with a strong management-oriented, applied problem-solving focus. Most research focused on forest management impacts upon white-tailed deer, American woodcock, wild turkey, Northern bobwhite, and other game and nongame species. With addition of new faculty, the research program has continued to grow, evolve, and diversify. Recent efforts have focused specifically upon providing research opportunities to students, while responding to agency and private constituency needs and interests for wildlife research. Most recently, The Simon and Louise Henderson Wildlife Research Institute was established to promote and execute wildlife research on private timberlands in East Texas. This Institute will focus primarily upon the impacts of private land management practices on wildlife, particularly in the new era of land ownership within the region.



Brad Maule, Lecturer, School of Theatre
William Arscott, Professor, School of Art
Stephen J. Lias, D.M.A., Associate Professor, School of Music
College of Fine Arts

"Skipping Tomorrow" - Collaboration and Film-making

College of Fine Arts faculty members Brad Maule, William Arscott, and Stephen Lias will discuss the making of the film "Skipping Tomorrow" (directed by Rob Senska). Arscott and Maule will discuss various issues related to the selection, production, filming, and editing of the film, and Lias will provide additional comments regarding the original musical score. The presentation will also include one or more short excerpts from the finished film.

If We Invite Them, Will They Come? Impacting Attitudes of Native American Youth toward Higher Education

E. Oliphant & S. Templeman

Informal Ambassadors: American women, transatlantic marriages, and Anglo-American relations, 1865-1945

D. Cooper

Mask-making in Social Work Education: Linking creativity and experiences

W. Cordova, E. Oliphant & R. Swanson

Quiet Paints: The nexus of international collaboration, teaching, mentoring, research and scholarship

S. Templeman & M. Kuzub

The Parliaments of Gods and Men in Chaucer's Knight's Tale

M. Guidry

Representing the Library

Documenting Community History

L. Reynolds

Empowering Researchers: Finding what you need within the TIDES digital collections

A. Ellis

Freshman Retention Rates: the AARC helps "Close the Gaps in Success" for minority and developmental students

M. Boiles

Google Earth: Cool toy or cool tool

R. P. Reynolds

Mahdeen: The story of a Nacogdoches company

J. Brancato

Priming High School Students for their College Transition

T. Oswald & M. Turnage

SI Gears Up: Research applications for tutor training

M. E. McWilliams

TIDES Art-based Initiatives

J. Bibby

Exhibitors

Shade Tree Evaluation in City Parks Using GIS

D. Wu, I-K. Hung, D. L. Kulhavy & D. R. Unger

Spatial Analysis of Historic Cemeteries: Using high spatial resolution imagery as a visual aid

R. E. Brooks & D. R. Unger

Streamside Management Zone Vegetation Effects from a Selective Timber Harvest

L. Sanders, M. McBroom, R. S. Beasley, and M. Chang

The Effects of Fire Management on Avian Species in Missouri Ozark Glade-Woodland Habitats

A. L. Bell, C. E. Comer, D. B. Burt, W. C. Conway & B. P. Oswald

The Visitor Voices Project: Assessing interpretive outcomes in the intermountain region of the National Park Service

T. G. Coble, H. S. Lin & D. W. Coble

Use of GIS Mapping Sidewalk Priority in Nacogdoches, Texas

L. Starks, D. L. Kulhavy, D. Young, D. R. Unger, A. L. Kulhavy & C. Denson

*Use of Prescribed Fire and Herbicide to Control the Exotic Invasive *Cyperus enterianus* (Cyperaceae) in Texas Coastal Prairie*

J. R. King, W. C. Conway & D. J. Rosen

Water Quality Effects of Herbicide Applications with Forestry Best Management Practices

M. McBroom, J. Louch, R. S. Beasley, M. Chang & G. Ice

Wildlife Management Research at SFA: Program development and initiation of The Simon and Louise Henderson Wildlife Research Institute

W. C. Conway, C. E. Comer, D. G. Scognamillo, J. C. Kroll & B. C. Koerth

Representing the College of Liberal & Applied Arts

An Examination of the Public Image of the Nacogdoches Police Department

T. Joseph

Families in East Texas: Stories of diversity

E. Oliphant, C. Brooks, B. Adams, T. Leo, C. Garrett, T. Keener, K. Wilkins & J. McConathy

Frontier Capitalism: The market revolution in rural central Missouri, 1830-1860

J. Bremer



Alyx S. Frantzen, Ph.D.

Associate Professor of Chemistry
College of Sciences & Mathematics

1:30 - 2 p.m.
PSC Theater

Hot Chemistry Between the Sheets: Current Research in the Clay Laboratory

Kitty litter, glossy paper, thalidomide, landfill liners, drilling mud. What may seem to be a random group of items has one very simple thing in common, clay. What may be considered a simple, inexpensive, ubiquitous mineral can be used in a myriad of very different research areas. Clay minerals have been utilized successfully in the separation of enantiomeric compounds such as ibuprofen. This is of great interest to the pharmaceutical industry as over \$200 billion a year is spent on the design of enantiomerically pure agents. The clay 'sheets' are modified with a simple amino acid that can recognize the enantiomer of interest. The other simply passes through. When tailoring the clay, it is imperative that the physical properties of the clay be known as accurately as possible. Traditional methods are time consuming, destructive, expensive, and imprecise. A new, novel approach to clay characterization is the use of 'bomb' calorimetry. The clays are modified with hydrocarbons. When detonated in the 'bomb,' the combustion energy is measured using a standard laboratory technique. The energy measured is related back to the physical property of interest. In the clay laboratory, students really are doing hot chemistry between the sheets.



Deborah D. DuFrene, Ed.D.

Professor of Business Communication
Nelson Rusche College of Business

2:30 - 3 p.m.
PSC Theater

Response of Business Communication Students to an Electronic Textbook

The textbook as we have known it is undergoing a rapid metamorphosis toward something that hardly resembles texts of the past. While electronic textbooks (ebooks) are becoming more popular due to technology advances and rising textbook costs, their effectiveness as instructional tools has not been well established. In the current study of 161 business communication students' response to an ebook, most reported no previous experience with electronic textbooks prior to the course. The respondents, half of whom were business majors and half non-majors, generally did not report usage difficulties or slow down-load time with the ebook. Of those reporting access to a print text, the majority relied more for course reading on their print text rather than on the ebook. Students reported using the ebook most often to scan or read selectively, rather than reading assigned content completely. Most found the ebook to be no more difficult to read than print texts, and the vast majority found it to be at least as convenient. The majority believed the format of the textbook (ebook vs. print) did not affect grades earned. Most students preferred a choice in the purchase of an ebook or print textbook.

Spotlight Speakers



Rachel B. Galan
Associate Director for Library Services
Ralph W. Steen Library

3:30 - 4 p.m.
PSC Theater

The Impact of TIDES (Teaching, Images, and Digital Experiences)

The TIDES Program is helping to revitalize the role of academic libraries and to ensure the relevancy of memory institutions in a rapidly changing digital environment where users are empowered to seek and process information on their own. The TIDES Program offers a digital gateway to rich historical, cultural, and scientific resources held in libraries in Texas and Mexico, museums, archives, historical societies, university research collections, private collections, state parks, and wildlife preserves. These resources (photographs, scanned documents and artifacts, video, and more) are made accessible to a variety of audiences through the collaboration of librarians, subject experts, and the K-12 community. TIDES SFA-based projects include the development of digital research collections, the creation of virtual tours and expeditions to university centers, training opportunities for pre-service teachers, service learning opportunities for SFA students, and the development of college readiness resources for high school students.

Exhibitors

Representing the Teaching Excellence Center

Creating the Digital Portfolio and Resume
L. Bond (Liberal & Applied Arts)

Crise d'Identité: Exploration of global issues from a francophone perspective
J. Johnston (Liberal & Applied Arts)

Developing Team Interaction
M. Bayless (Business)

Encouraging Musical Minds through Applied Projects
M. Turner (Fine Arts)

In the Path of Disaster: Success against all odds
S. Templeman & K. Belanger (Liberal & Applied Arts)

Living History: Oral history assignments in the freshman US survey course
R. Cox (Liberal & Applied Arts)

Effects of Intermittent Suckling on Sow and Litter Performance
E. G. Brown & J. A. Keith

Exponential Population Growth on Nesting Bald Eagles in Texas
S. T. Saalfeld, W. C. Conway, R. Maxey, C. Gregory & B. Ortego

GIS Aided Archaeological Research for Locating and Identifying 18th Century Spanish Roads through East Texas
J. M. Williams & I-K. Hung

Image Classification for Mapping East Texas Forests: Pixel-based versus object-oriented
J. Raines, I-K. Hung & J. C. Kroll

Initial Growing Season Response by Bahiagrass to Herbicide Applications in Coastal Prairie: Implications for coastal prairie restoration
H. M. Holder, W. C. Conway, D. J. Rosen & L. Allain

Land Cover Classification and Digital Image Processing at SFA
D. R. Unger

Landscape Ecological Analysis of an Historic Trail Using GIS
K. Ford, D. L. Kulhavy, S. Richardson & D. R. Unger

Latino Legacy: Creating connections between youth and nature through family experiences on forest lands
T. Conway, D. Scognamillo, M. Legg, P. Stephens Williams & R. Darville

Merging GPS Data with High Spatial Resolution Multispectral Imagery: An urban recreation case study
D. R. Unger, D. L. Kulhavy & J. E. Benson

Motivations for Attending Ranger-led Interpretive Programs in Yosemite National Park
M. Ortiz, M. Legg, R. Darville & P. Stephens Williams

Numerical Modeling Used for Hydrological Simulation/Prediction Using the Agricultural Policy eXtender (APEX) Model
L. Sanders, M. McBroom, R. S. Beasley & M. Chang

*Occupancy and Roost Habitat for the Rafinesque's Big-eared Bat (*Corynorhinus rafinesquii*) in East Texas*
L. A. Stuemke, C. E. Comer, D. Dawson, R. W. Maxey & L. A. Lomas

Ornamental Plant Evaluation at the SFA Mast Arboretum: Two decades of trials and tribulations
D. Stover & D. Creech

Exhibitors

Representing the College of Forestry & Agriculture

A Comparison of Soil and Plant Characteristics between Abandoned Natural Gas Drill Pads and Adjacent Areas, Barksdale Air Force Base, Bossier City, Louisiana
A. J. Miller, H. M. Williams, K. W. Farrish, B. P. Oswald & D. R. Unger

A Litmus Test for a Green State: Minnesota adult environmental education opportunities regarding critical natural resource issues
A. Markle, T. G. Coble, P. Stephens Williams, M. Fountain & K. Shragg

Accuracy Assessment of Land Cover Maps Derived from Multiple Data Sources
D. R. Unger, H. Tribby, H. M. Williams & I-K. Hung

American Alligator Movements and Home Range Size in Inland Wetlands of East Texas
D. T. Saalfeld, W. C. Conway & G. E. Calkins

An Economic Impact Analysis of the Effects of Barnwell Mountain Off-Highway Vehicle Recreation on Local Communities
J. Price, P. Stephens Williams & M. Legg

Annual and Spring Home Range Size of Male Eastern Wild Turkeys on the Angelina National Forest in East Texas
J. R. Bass, W. C. Conway, G. E. Calkins & T. W. Schwertner

Assessment of Black Bear Habitat in Three Northeast Texas River Systems
T. Siegmund, C. E. Comer, R. Maxey & N. Garner

Atmospheric Deposition of Nutrients at the Alto Experimental Watersheds in East Texas
L. Sanders, M. McBroom, R. S. Beasley & M. Chang

Bridging the Gap: Designing and implementing appropriate interpretive training for staff exchanges between Grand Canyon National Park (USA) and Yuntaishan World Geopark (People's Republic of China)
D. Smith, T. G. Coble, I-K. Hung & D. W. Coble

Carbon Yields for Unthinned Loblolly and Slash Pine Plantations in East Texas
D. W. Coble & J. Grogan

Challenges of Establishing Silvopasture in a Pasture in East Texas
M. J. Beierle, B. P. Oswald, K. W. Farrish & B. C. McNally

Demographic Parameters, Reproductive Success, and Multi-scale Habitat Use of Translocated Wild Turkeys in East Texas
J. L. Isabelle, W. C. Conway, C. E. Comer, G. E. Calkins & T. W. Schwertner

Podcasting to Motivate Students
M. Ajero (Fine Arts)

Study Abroad Program in Thailand Enhances Students' Cultural Diversity
D. D. O'Dwyer & S. A. Swearingen (Education)

Teaching Online: The AST 105 story
N. Markworth (Sciences & Mathematics)

Using "Movie Maker" to Improve Student Visual Literacy
S. Josephsen (Education)

Utilizing WebCT for Student Advising
S. Jennings (Business)

Voces Inocentes: Contextualizing language learning with film
J. Paul-Ureña (Liberal & Applied Arts)

Webcam Supervision of Distance Education Teacher Candidates
P. Griffin & S. Barber (Education)

30 Seconds and \$2.5 Million: Super opportunities to enhance student learning
J. Frye & A. Greule (Liberal & Applied Arts)

Representing the College of Business

An Integrative Multi-modeling Environment: Framework for integrating geometry, dynamic and informational models
M. Park & I. Brooks

Assurance of Learning: Phase 2 for the business communication course
M. Bayless, A. Wilson & J. Biss

Survey Response Rates Based on Mode of Delivery and Mode of Return
S. Jennings & A. Wilson

Representing the College of Education

Building the Affective Domain in Online Reading Classrooms
J. Gresham, S. Stewart & V. Alexander

Comparing Universities: A case study between US and China
W. Chauvin

Developing Scholar-Practitioners: The doctoral program in educational leadership
C. Caraway & R. Fredrickson

Exhibitors

District Leaderships' Impact on Student Achievement

P. M. Sampson & R. L. Marshall

Diversity Climate Surveys

E. Witherspoon

Effects of Metered vs. Bolus Water Consumption on Urine Production and Rehydration

E. Jones

Enhancing Student Thinking and Work Quality through Independent Research

J. Gresham, K. Welsh & H. Zawlocki

ENLACE - English Language Acquisition Center for Excellence

B. Alford & M. C. Niño

GEAR UP - Gaining Early Awareness and Readiness for Undergraduate Programs

B. Davis & D. Stephens

Human Papilloma Virus

K. Archer

Impact of Language Development Training for ESL Preschool Teachers in Rural East Texas

D. Gottshall, J. Nerren & C. Abel

Patterns of Cortical Activity in Individuals with a History of Stuttering

A. Kennedy & J. L. Lauter

Physiological Correlates of Migraine Headache

A. Williams, J. L. Lauter, R. Sylvester, & V. Barron

Pilot Study of Weight Gain in Collegiate Male Athletes: Supplement vs. food products

K. Archer, J. Lee, D. Eason, P. Bahnsen, A. Whisenant & B. Burton

Predicting Academic Performance in College Athletes: The symbol imagery (SI) test

S. Emerson & J. L. Lauter

Project DEVELOP Student Research

J. Ballenger, J. Tareilo & L. Stewart

Student Teaching in Costa Rica

N. Armstrong

Syntactic Errors of Bilingual Children

M. McKaig & K. Hawkins

The Trimodal Brain: A new human neurotypology and its implications for multiple intelligences, hyperactivity, brain imaging, and education

J. L. Lauter

The Use of Aural and Visual Memory Triggers in Autobiographical Self-Study

M. Seaman

Water Works: A wetland adventure

A. B. Sowards & C. Boyette

Yes, We Have a Blog: Connecting alumni, students and industry partners through technology

C. Runnels

Representing the College of Fine Arts

Books and Related Prints from the LaNana Creek Press

C. Jones and LaNana Creek Press authors

Dragon Costumes

B. Blackwell

Environmental Design for the 22nd Century

A. Marquis

Etruscan Pouring Vessel

P. Fenci

Il Duomo

N. Cox

Martini Shaker

G. Schott

Primitive Pleated Silk for a Production of The Bacchae

A. Bacarisse

Skipping Tomorrow

W. Arscott

The Haves and Have Nots

M. Rozic

Archival Inkjet Photographs

C. Talbot