

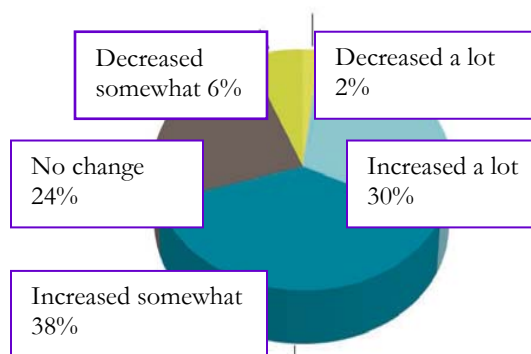
**Office of Research and Sponsored Programs**



## 2012 Undergraduate Research Conference: Celebrating Academic Diversity

Stephen F. Austin State University has adopted "High-Impact Practices to Enhance Student Learning" as our Quality Enhancement Plan (QEP). High-impact practices incorporated into course content engages students in learning, which improves higher-order thinking skills and overall student success. Undergraduate research, which often includes field-based learning, are high-impact practices adopted by SFA.

*ORSP is committed to supporting and promoting opportunities for undergraduate research at SFA. Visit our (new and improved!) website for a list of opportunities from programs to scholarships to publication venues.*



Student interest in STEM careers after participating in undergraduate research opportunities (sciencemag.org).

Last year, research grants awarded to SFA faculty and staff included more than \$210,000 for students. These funds provided opportunities for students to conduct research, perform field work, serve as technicians, and travel to meetings to present papers, all while earning their undergraduate degrees at SFA in a variety of majors.

To learn more about how faculty can be mentors to students, and how students can find faculty members willing to support their academic interests, visit SFA's new Undergraduate Research page today.  
<http://www2.sfasu.edu/orsp/undergradresearch.html>



STEPHEN F. AUSTIN STATE UNIVERSITY  
IS AN INSTITUTIONAL MEMBER OF THE  
COUNCIL ON UNDERGRADUATE RESEARCH  
*Learning Through Research*

**Stephen F. Austin State University  
Baker Patillo Student Center  
Twilight and Grand Ballrooms**

**Tuesday, April 10, 2012  
4 p.m. – 8 p.m.**

## 2012 SFA Top Scholars

### Nelson Rusche College of Business

**Andrew Falcon and Michael Fleck**

*How Does SFA's Student Investment Roundtable Fund Stack up Against National Competitors?*

Department of Economics and Finance – Dr. Ryan Phelps

### Arthur Temple College of Forestry and Agriculture

**Sierra Gibbons**

*Phytoremediation of Cadmium and Chromium Contaminated Soils*

Division of Environmental Science – Dr. Kenneth Farrish

### College of Liberal and Applied Arts

**Lindsey Antonini**

*ARKTOSK: Language of the Bears*

Department of English – Dr. Jessie Sams

### College of Sciences and Mathematics

**Rebecca Collins and Molly Blanchette**

*The Heavy Metal Analysis of Lichens and Soils*

Department of Chemistry – Dr. Michael A. Janusa

### College of Fine Arts

**Garrett Nichols**

*A Performer's Analysis of Brahms Sonata in F Minor for Clarinet and Piano*

School of Music – Dr. Christopher Ayer and Dr. John Cotner

### James I. Perkins College of Education

**Amanda Johnson**

*Beta-Glucan Reduces Heart Disease by Lowering LDL-Cholesterol*

School of Human Sciences – Dr. Darla O'Dwyer

## University Finalists – Poster Presentations

### Regional Colleges

- **Juan F. Macias-Velasco** *Asian Citrus Psyllid (Diaphorina citri) Transcriptome Analysis: Prediction of miRNA Binding Site Variation between Life Stages* Department of Biology – Dr. Blake Bextine (UT Tyler)
- **Megan McClay** *Diabetes and Global Health* Nursing Department – Judith A. King (Lone Star College-North Harris)
- **Chris M. Powell** *Influence of SINV on Insecticide-Treated Red Imported Fire Ant* Department of Biology – Dr. Blake Bextine (UT Tyler)



## Undergraduate Research at SFASU

Each year SFA holds the Undergraduate Research Conference to celebrate the academic achievements and scholarly excellence of its undergraduate students. This year's conference showcases student projects completed across SFA's six colleges and regional colleges over the previous academic year.

Any paper or project composed or performed during the previous calendar year (in this case, 2011) as part of an undergraduate course requirement or as a faculty-supervised independent project was eligible for the competition.

For more information about this program and works of past winners, please visit our website:

<http://www.sfasu.edu/honors/urc/index.asp>

Special thanks to the Office of the Provost & Vice President of Academic Affairs, the School of Honors, and the Office of Research and Sponsored Programs.

URC Executive Committee: Dr. Leslie G. Cecil, Dr. John Cotner, Dr. Alyx Frantzen, Dr. Eric Jones, and Dr. Michael Tkacik

## University Finalists – Poster Presentations

### College of Fine Arts

- **Jessica Dunn** *Pen and Pigment Collaborative Project – Unexpected* School of Art – Peter Andrew
- **Eneida M. Santiago Velez** *Maymester 2011, New York City Trip—Infinite Directional* School of Art – Peter Andrew
- **Samantha Walker** *Giraudoux at the Gates* School of Theatre – Dr. Rick Jones

### College of Liberal and Applied Arts

- **Christi Courade** *Medicating America: Exploring Prescription Drug Abuse in a Rural East Texas Community* School of Social Work – Dr. Kim Rich-Rice
- **Dasha Evans** *Bullying within the LGBT Community* School of Social Work – Dr. Kim Rich-Rice
- **Megan Fleming** *Is Hamas Really a Religious Terrorist Group?* Department of Government – Dr. Michael Tkacik
- **Wesley Geller** *Stasi Repression of East German Musician Wolf Biermann* Department of History – Dr. Randi Cox
- **Braydon Howard** *The Effects of Tattoo Size and Location of Ratings of Perceived Attractiveness and Multiple Personality Constructs* Department of Psychology – Dr. Rhiannon Fante-Konwinski
- **Rebecca Matlock** *From Struggle to Liberation: A Critical Analysis of the Film The Color Purple* Department of Languages, Cultures, and Communication – Dr. Sudeshna Roy
- **Courtney Snow** *The Importance of Wedding Rituals in Human Societies* Department of Social and Cultural Analysis – Dr. Dianne Dentice
- **Kyle Sitka** *Fallout 3 as a Continuation of Cold War Cultural Language* Department of History – Dr. Randi Cox
- **Mary Welch** *The Electric Housewife: Post-War Supermoms and the Modernization of the American Home* Department of History/Interdisciplinary Studies – Dr. Dana Cooper
- **Allison M. Ellis** *The Red Scare* Department of History – Dr. Randi Cox  
(Best Freshman Submission)

## Schedule of Events

### Twilight Ballroom

- 4:00 – 4:10** Opening announcements, Dr. Eric Jones
- 4:10 – 4:40** Presentation of awards to Top Scholars and Finalists, Provost Dr. Richard Berry

### Top Scholar presentations

- 4:40-4:50** **Andrew Falcon and Michael Fleck** *How Does SFA's Student Investment Roundtable Fund Stack up Against National Competitors?* – Dr. Ryan Phelps (Nelson Rusche College of Business/Department of Economics and Finance)
- 4:50-5:00** **Sierra Gibbons** *Phytoremediation of Cadmium and Chromium Contaminated Soils* – Dr. Kenneth Farrish (Arthur Temple College of Forestry and Agriculture/Division of Environmental Science)
- 5:00-5:10** **Lindsey Antonini** *ARKTOSK: Language of the Bears* – Dr. Jessie Sams (College of Liberal and Applied Arts/Department of English)
- 5:10-5:20** **Rebecca Collins and Molly Blanchette** *The Heavy Metal Analysis of Lichens and Soils* – Dr. Michael A. Janusa (College of Sciences and Mathematics/Department of Chemistry)
- 5:20-5:30** **Garrett Nichols** *A Performer's Analysis of Brahms Sonata in F Minor for Clarinet and Piano* – Dr. Christopher Ayer and Dr. John Cotner (College of Fine Arts/School of Music)
- 5:30-5:40** **Amanda Johnson** *Beta-Glucan Reduces Heart Disease by Lowering LDL-Cholesterol* – Dr. Darla O'Dwyer (James I. Perkins College of Education/School of Human Sciences)

### Grand Ballroom

- 5:40-8:00** **Poster Presentations of Finalists**  
*Refreshments served*

## University Finalists – Poster Presentations

### James I. Perkins College of Education

- **Bric Alverson** *Social Media as a Marketing Tool for Community Groups* Department of Human Sciences – Mary Olle
- **Brooke Brodlowicz** *Is It Green? A Survey of Flooring Materials* Department of Human Sciences – Donna Pharris
- **Keilea Bullard** *Biomechanical Analysis of the Cartwheel* Department of Kinesiology and Health Science – Delbert Graves
- **Sarah Feye, Carrie Flowers, and Amanda Johnson** *Living the Tasty Life: Cooking for People with Diabetes* Department of Human Sciences – Carol Bradley
- **Amber Heeter, Cassie Welch, Courtnie Bartel, and Elizabeth Royal** *Assisted Living Design Project* Department of Human Sciences – Dr. Mitzi Perritt
- **Robyn Hicks and Noah Claytor** *Is Our Knowledge and Opinion Based on the Internet?* Department of Secondary Education and Education Leadership – Dr. Kenneth R. Austin
- **Kayla King** *Reflection on Various Interviews about Reading and Reading Comprehension* Department of Elementary Education – Adrian Decker
- **Vanessa Pratt** *Adaptations to Technology and the Influence on Communication and Cohesion in the Family Context* Department of Human Sciences – Dr. Brandon Burr
- **Brandon Warren** *Validation of the SenseWear Pro Armband for Energy Expenditure During Resistance Training* Department of Kinesiology and Health Science – Dr. Mark D. Faries

### Arthur Temple College of Forestry and Agriculture

- **Marycruz Bazan and Christopher Kossegi** *Implementation of the President's Challenge in a Freshman Seminar Success Class* Division of Forestry – Dr. David L. Kulhavy
- **Melissa Ferguson** *Industrial Ash as a Soil Liming Agent* Division of Environmental Science – Dr. Kenneth Farrish
- **James Hearn** *Geographic Information Systems and Cloud Computing* Division of Forestry – Dr. Yanli Zhang
- **Olivia LaMaster and Melissa Bozarth** *Effects of Humate and Lignite Coal Amendments on Plant Growth in a Coarse Texture Soil* Division of Environmental Science – Dr. Kenneth Farrish
- **Kyle Palmer** *Multi-criteria Site Evaluation Methodology for Oil and Gas Exploration* Division of Forestry – Dr. David L. Kulhavy
- **James Theiss** *Grand Teton National Park Focused Visitor Survey* Division of Forestry – Dr. Pat Stephens Williams and Department of Social and Cultural Analysis – Dr. Ray Darville

## University Finalists – Poster Presentations

### College of Sciences and Mathematics

- **Tiffany Lundy** *A Multiplicative "Conic"* Department of Mathematics and Statistics – Dr. Jeremy Becnel
- **Blake Moyer and Cory Robinson** *Solids of Revolution Formed by Rotating Functions* Department of Mathematics and Statistics – Dr. Jeremy Becnel
- **Jorge Ojeda** *Raman and Infrared Study of Select Thiadiazole Derivatives* Department of Chemistry – Dr. Kefa K. Onchoke
- **Trey Polvadore and Brittney Cooper** *Differentiation of Capsicum Species via Protein Extraction and SDS-PAGE Analysis: A Two Day Experiment for Undergraduate Biochemistry Laboratories* Department of Chemistry – Dr. Michele Harris
- **Ryan Smith, Charlie Knox, and Elizabeth Davis** *Enantioselective Biotransformation of Prochiral Ketone Using Carrots* Department of Chemistry – Dr. Michele Harris
- **Theda Strickler** *Petrology of Proterozoic to Tertiary Rocks in the Southern Burro Mountains, NM: Insights into Mazatzal to Basin and Range Magmatism and Tectonics* Department of Geology – Dr. Chris A. Barker
- **Chris Taliaferro** *Research in the Teaching Laboratory: Improving the Synthesis of Lidocaine* Department of Chemistry – Dr. Arlen Jeffery
- **Madison Timme** *Habitat Preference for the Purpose of Determining Ecosystem Vulnerability to the Invasive Apple Snail (Pomacea diffusa)* Department of Biology – Dr. Brent Burt
- **Merly Zavala** *Analysis of Copper and Zinc in Foods* Department of Chemistry – Dr. Kefa K. Onchoke

### Nelson Rusche College of Business

- **Mandi Lovett** *Apartment Rental Prices in Dallas* Department of Economics and Finance – Dr. Ryan Phelps
- **Sara Muckleroy, Meagan Webb, Donovan Pearson, and Jeremy Pinkston** *Fitness Involved Teamwork* Department of General Business – Judith L. Biss
- **Natalie Strabala and Alyssa Rains** *The HEALTH Program* Department of General Business – Judith L. Biss
- **Justin Rodriguez** *Understanding Student GPA* Department of Economics and Finance – Dr. Ryan Phelps
- **Jianheng Zhang** *Stephen F. Austin State University Student GPA Study* Department of Economics and Finance – Dr. Ryan Phelps