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.

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

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

<table>
<thead>
<tr>
<th>Change</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreased somewhat</td>
<td>6%</td>
</tr>
<tr>
<td>Decreased a lot</td>
<td>2%</td>
</tr>
<tr>
<td>No change</td>
<td>24%</td>
</tr>
<tr>
<td>Increased a lot</td>
<td>30%</td>
</tr>
<tr>
<td>Increased somewhat</td>
<td>38%</td>
</tr>
</tbody>
</table>
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. Michael Tkacik

• 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-Knowinski

• 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 Brittny 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 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
- **Natalie Strabala and Alyssa Rains** The HEALTH Program  
  Department of General Business – Dr. Kenneth Farrish
- **Justin Rodriguez** Understanding Student GPA  
  Department of Economics and Finance – Dr. Ryan Phelps
- **Jiaheng Zhang** Stephen F. Austin State University Student GPA Study  
  Department of Economics and Finance – Dr. Ryan Phelps