

BAYLOR

U N I V E R S I T Y



Undergraduate Research
and
Scholarly Achievement
(URSA)
Presents

Scholars Day
Scholars Day

April 22nd & 24th, 2008

Dear Colleagues:

Undergraduate scholarship has long informed academic life within the halls of Baylor's schools and colleges. From interdisciplinary research studying chaos in mathematical systems to an examination of the ethical lessons to be found in twelfth- and thirteenth-century courtly literature, undergraduate research at Baylor continues to expand the boundaries of knowledge. Much more importantly, the skills students learn through their involvement in undergraduate research are essential to their success in an ever-flattening world.

Student endeavors of this sort are strongly dependent upon both the teaching skill and the amount of individual attention given each student by his or her faculty mentor. As always, Baylor faculty shine at such tasks! I invite you to join me at the first URSA Scholars day in exploring the collaborative efforts of our students and faculty. The best is yet to come.

Sincerely,

Truell W. Hyde, Ph.D.
Vice Provost for Research

**Martin Museum of Art
in the
Hooper-Shaefer
Fine Art Center
April 22 – 25, 2008**

**April 22, 2008
Bill Daniel Student Center
Baines Room**

Chuck Jobe

**Faculty Mentor: Professor Robbie Barber and
Professor John McClanahan**

Medium: *Sculpture*

Title: *Senior BFA Exhibition*
(Art)

Joey Drew

**Faculty Mentor: Professor Susan Dunkerley and
Professor John McClanahan**

Medium: – *Ink Jet Print (Digital Photography)*

Title: *Joseph Drew Senior BFA Exhibition*
(Art)

Shawn Denny

Faculty Mentor: Professor Virginia Green

Medium: *Graphic Design*

Title: *Senior Portfolio*
(Art)

1:00 Jesi Mann and Kassie Kemp

Faculty Mentor: Professor Carol Macaulay

*A Toyah Campsite on the Leon River: Excavations at the Upper
Sprague Site (41HM54), Hamilton County*

(Anthropology, Forensic Science and Archaeology)

Larry Kocian

Faculty Mentor: Professor Carol Macaulay

*Descriptive, Nutritional and Contextual Analysis of Freshwater Mussels
from Area D, Upper Sprague Site (41HM54), Hamilton County*

(Anthropology, Forensic Science and Archaeology)

Luis Aran and Lindsey Estep

Faculty Mentor: Professor Carol Macaulay

*How to Manage, Visualize and Analyze Intro-Site Archaeological Data
Using GIS*

(Anthropology, Forensic Science and Archaeology)

2:00 Katherine Rice

Faculty Mentors: Dr. Bill Jensen/Dr. John Thorburn

Portrayals of Individuality Among Women in Hellenistic Art
(Art)

Erin Stewart

Faculty Mentor: Dr. Antonios Augoustakis

Never Go In Against a Sicilian When Death is on the Line
(Classics)

3:00 Andrew Powell

Faculty Mentor: Dr. Kevin D. Dougherty

Origins of Religious Tension in One Protestant Congregation
(Sociology)

**April 22, 2008
Bill Daniel Student Center
Beckham Room**

3:30 Megan Malouf, Catherine Baker and Victoria Bongat
Faculty Mentor: Dr. Mia Moody-Hall
Not Ready to Play Nice: An Analysis of Negativity in the News Releases of 2007-08 Primaries Presidential Candidates
(Journalism)

4:00 Kate Gronewald
Faculty Mentor: Dr. Sara Stone
Reviewing "A Mighty Heart: The Brave Life and Death of my Husband, Danny Pearl"
(Journalism)

Victoria Bongat
Faculty Mentor: Dr. Sara Stone
Freedom of Expression and Freedom of the Press
(Journalism)

Jaclyn Reddick
Faculty Mentor: Dr. Sara Stone
Jerry Falwell v. Hustler Magazine, Inc.
(Journalism)

**April 22, 2008
Bill Daniel Student Center
Fentress Room**

1:00 Blake Batson
Faculty Mentor: Dr. Jonathan Kvanvig
Does Pierre Know Londres est Jolie?
(Philosophy)

Ezra Cook & Bethany Perryman
Faculty Mentors: Dr. Anne-Marie Bowery/Dr. J. Lenore Wright
Women's Bodies, Women's Stories: Use of Narrative in Feminist Theory of the Body
(Philosophy)

Evan Roane
Faculty Mentor: Dr. Stuart Rosenbaum
Moral Transformation in the Process of Religious Conversion
(Philosophy)

3:00 Joshua Hyles
Faculty Mentor: Dr. Keith Francis
"King John, Paul, St. George, and Ringo: How Beatlemania Saved the British Empire"
(History)

Larry Sandigo
Faculty Mentor: Dr. Keith Francis
Nineteenth-Century Secularization in Europe: Causes and Effects
(History)

Lindsey Cox
Faculty Mentor: Dr. Keith Francis
"Pope Gregory VII, Was He Interested in Ideas of Papal Primacy or Papal Monarchy?"
(History)

April 22, 2008
Bill Daniel Student Center
Fentress Room

4:00 Courtney Spott
Faculty Mentor: Professor Lauren Redman
Corporate Responsibility in International Relations
(Political Science)

Dae Kim
Faculty Mentor: Professor Lauren Redman
Political Exceptions: Methods of Foreign Relation in the US and the Power to Control Them
(Political Science)

Taylor Norwood
Faculty Mentor: Dr. Ivy Hamerly
"Global Problem, Global Solution: Transnational Terrorism and the International Criminal Police Organization"
(Political Science)

Michelle Miller
Faculty Mentor: Dr. Ivy Hamerly
Re-defining Human Rights
(Political Science)

April 22, 2008
Bill Daniel Student Center
White Room

2:00 Julie Dobson
Faculty Mentor: Dr. Frieda Blackwell
La crítica religiosa en "La conversión de Chiripa"
(Modern Foreign Languages)

Kristina Edwards
Faculty Mentor: Dr. Paul Larson
El Rechazo y el Perdón en Los Escarmentados por Emilia Pardo Bazán
(Modern Foreign Languages)

Aylssa Lawler
Faculty Mentor: Dr. Frieda Blackwell
The Evolution of the Symbol of Water Demonstrates the Transitions in the Poetry of Antonio Machado
(Modern Foreign Languages)

3:00 Alexandra Elkins
Faculty Mentor: Dr. Paul Larson
The Influence of Music: García Márquez's "Ladrón de sábado"
(Modern Foreign Languages)

Rachel Pfarr
Faculty Mentor: Dr. Paul Larson
Self Realization and Room to Grow: Keys to Becoming Something More
(Modern Foreign Languages)

Victoria Turner
Faculty Mentor: Dr. Paul Larson
El proceso de santidad dentro de "La santa"
(Modern Foreign Languages)

April 22, 2008
Bill Daniel Student Center
White Room

4:00 Keith Gustine
Faculty Mentor: Dr. Dean Martin
The Commoner and The Colonel: Church and International Politics
(Religion)

Robert Reed
Faculty Mentor: Dr. Sharyn Dowd
Paul and the Value of Creaturely Existence
(Religion)

Shea Reyenga
Faculty Mentor: Dr. Doug Weaver
Animal Symbolism in Apocalyptic Literature
(Religion)

April 24, 2008
Baylor Sciences Building
Atrium

Board 1 Jay Creighton & Anali Gatlin
Faculty Mentor: Dr. Sara Alexander
Putting People First: The Challenges of Local Participation in Community Development
(Anthropology, Forensic Science and Archaeology)

Board 2 Scott Kuykendall
Faculty Mentor: Dr. Garrett Cook
The Design of Offerings at Maya Shrines
(Anthropology, Forensic Science and Archaeology)

Board 3 Robert Moore
Faculty Mentor: Dr. Garrett Cook
Mayan Sacred Music and the Spirits
(Anthropology, Forensic Science and Archaeology)

Board 4 Megan McNerney
Faculty Mentor: Dr. Garrett Cook
Effects of Formal Education on Indigenous Women in Momostenango
(Anthropology, Forensic Science and Archaeology)

Board 5 Patricia Cowling
Faculty Mentor: Professor Max Courtney
Effects of Time, Heat, Light and Surface on the Deterioration and Enhancement of Bloody Fingerprints
(Anthropology, Forensic Science and Archaeology)

Board 6 Amanda Hartman
Faculty Mentor: Dr. Tamarah Adair
*Nasal Carriage Rate of *Staphylococcus aureus* in Undergraduate and Veterinarian Populations*
(Biology)

Board 7 Amanda Hartman, Trevin Rube, Breck Sandvall, Brooklyn Sandvall & Youssef Ybarra
Faculty Mentor: Dr. Tamarah Adair/Dr. Diane Hartman
*Prevalence of Methicillin resistant *Staphylococcus aureus* Nasal Carriage in a College Population*
(Biology)

Board 8 Kimberly Doffing
Faculty Mentor: Dr. Sung-Kun Kim
*Interactions of 5'-Adenylylphosphosulfate Reductase from *Pseudomonas Aeruginosa* with Substrates*
(Chemistry/Biochemistry)

April 24, 2008
Baylor Sciences Building
Atrium

- Board 9 Claire Burch**
Faculty Mentor: Dr. Kathy Whipple
The Usage of Visual Scene Pages to Enhance Communication of the Severely Impaired
(Communication Sciences & Disorders)
- Board 10 Angela Boettcher, Sarah Broyles, Claire Chambers, Paige Cox, Jessica Davis, Laura Freeling & Amanda Maloney**
Faculty Mentor: Dr. Patricia Sharp, Professor Betty Ruth Baker and Mrs. Melissa Cates
Outside Baylor Mentor: Mrs. Cheri Jennings, Parkdale Elementary School – Waco ISD
Developing Oral Language Skills by Using Wordless Picture Books
(Curriculum & Instruction)
- Board 11 Katherine Geist, Kaitlyn McDonald, Shanna Poyner, Alex Horn, Heather Hays, Susan Cooper-Twamley, Dittika Gupta, Sara Mechell, Kristin Arterbury, and Gabriela Gatlin**
Faculty Mentor: Dr. Patricia Sharp, Dr. Sandra Cooper, Dr. Trena Wilkerson, Dr. Rachelle Meyer and Professor Betty Ruth Baker
Developing Fractional Thinking in 3rd Graders: A Collaborative Study with Undergraduate and Graduate Students
(Curriculum & Instruction)
- Board 12 Megan Llewellyn, Emily Arrington, Lindsay Wessberg, Mark Montgomery, Sherrie Moore, & Susan Cooper-Twamley**
Faculty Mentor: Professor Betty Ruth Baker, Dr. Trena Wilkerson, Dr. Rachelle Meyer, Dr. Patricia Sharp and Dr. Sandi Cooper
Developing Fractional Thinking in Kindergarten & 2nd Grade Students: A Collaborative study with Undergraduate and Graduate Students
(Curriculum & Instruction)
- Board 13 Jordan Sandefur, Caroline Fisher, Melissa Merritt and Sheridan Rainey**
Faculty Mentor: Dr. Sandra Cooper
Math in the Museum: An Exploration of Mathematical Thinking in Informal Learning Environments
(Curriculum & Instruction)

April 24, 2008
Baylor Science Building
Atrium

- Board 14 Holly Hodges**
Faculty Mentor: Dr. Julie Ivey
Pediatricians and Patients with Autism and Autism Spectrum Disorders: Diagnostic Practices, Confidence Levels, and Beliefs
(Educational Psychology)
- Board 15 Sarah Garza**
Faculty Mentor: Dr. Susan Bratton
Impact of Ligustrum lucidum on leaf morphology, chlorophyll, and flower morphology of White Trout Lily (Erythoium albidium) in Cameron Park, Waco, Texas
(Environmental Studies)
- Board 16 Gabriela Keeton**
Faculty Mentor: Dr. Stephen Dworkin
Grain Size Distribution and Organic Matter Content from Paleosols that Span the Cretaceous-Tertiary Boundary, Big Bend, Texas
(Geology)
- Board 17 Davis Walker**
Faculty Mentor: Dr. Steven Driese
The Anatomy of Petroleum Exploration in the Gulf Coast
(Geology)
- Board 18 Adam Damman**
Faculty Mentor: Dr. Steven Driese
Archean Glaciation: Mechanisms and Termination
(Geology)
- Board 19 Stephen Secrest**
Faculty Mentor: Dr. Vincent Cronin
Newly Recognized Faults near Belton, Texas: A Display of Preliminary Results and Measurements
(Geology)
- Board 20 Alexander Dixon & Debra Jennings**
Faculty Mentor: Dr. Steven Driese
Provenance and the Early Diagenetic Alteration of Volcaniclastic Material Incorporated in Fluvial Channel Sandstone Deposits, Morrison Fm. Near Capitol Reef National Park, Utah
(Geology)

**April 24, 2008
Baylor Sciences Building
Atrium**

- Board 21 Christopher D'Aiuto**
Faculty Mentor: Dr. Steven Driese and Dr Rena Bonem
The Edwards Aquifer: Understanding and Solving Water Issues
(Geology)
- Board 22 Ryan Lindsay**
Faculty Mentor: Dr. Vincent Cronin and Dr. Steven Driese
Applying SLAM to the Wells, Nevada Earthquake
February 21, 2008
(Geology)
- Board 23 Michelle Diehl**
Faculty Mentor: Dr. Steven Driese
The North American Outlook for Petroleum
(Geology)
- Board 24 Caleb O'Flaherty, Brittany Blum, Brittney Darensburg,
& Matt Goodwin**
Faculty Mentor: Dr. Jeff Tanner
Houston Dynamo Case
(Marketing)
- Board 25 Matthew Benesh**
Faculty Mentor: Dr. Lorin Matthews and Dr. Jeffrey Olafsen
Thermophoretic Effects on Dusty Plasma Crystallization
(Physics)
- Board 26 Pamela Vo**
Faculty Mentor: Dr. Anzhong Wang and Dr. Jeffrey Olafsen
*Highly Efficient Numerical Simulations and Current Acceleration of
the Universe in String Theory*
(Physics)
- Board 27 Kyle Lartigue**
Faculty Mentor: Dr. Lorin Matthews and Dr. Jeffrey Olafsen
Tokamak Dust-Wall Impact
(Physics)

**April 24, 2008
Baylor Sciences Building
Atrium**

- Board 28 Meagan E. Vaitses**
Faculty Mentor: Dr. Dwight Russell and Dr. Jeffrey Olafsen
Analyzing Variable Stars
(Physics)
- Board 29 Eileen Fernandez**
Faculty Mentor: Dr. Lorin Matthews
*Mars' Circumplanetary Dust: An Application to the
Runge-Kutta Method*
(Physics)
- Board 30 Salif Mahamane**
Faculty Mentor: Dr. Wade Rowatt
*"The Effect of Photographic Depictions of Nature on
Positive/Negative Affect and Humility"*
(Psychology and Neuroscience)
- Board 31 Alex Cole and Connie Tang**
Faculty Mentor: Dr. Sung-Kun Kim
*A Potential Site for Antibiotic attack: Inhibiting
DD-Carboxypeptidase*
(Chemistry/Biochemistry)

Special thanks to the Scholars Day Committee:

Dr. Jeff Tanner, Chair

Dr. Janet Bagby

Dr. Greg Benesh

Dr. Frieda Blackwell

Dr. Rena Bonem

Dr. Jean Ann Boyd

Dr. Steven Eisenbarth

Ms. Carolyn Kallus

Dr. Allen Seward

Dr. Kathy Whipple

RESEARCH @ BAYLOR

Making A Difference

Cover Photograph of Pat Neff Hall
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Baylor Photography

Undergraduate Research and Scholarly Achievement

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