1999 Program for the
7th Annual Southeast Missouri State University
Student Research Conference
University Center 4th Floor
TUESDAY, APRIL 27 and WEDNESDAY APRIL 28, 1999

Tuesday Paper Presentations -- Indian Room

**Session 1**

9:00-9:05 Opening Remarks

9:05-9:20 Theresa M. Leggett

The Involuntary Commitment of Persons to Mental Health Facilities

Major: Psychology

Faculty Sponsor: Dr. Ginny Moore

9:20-9:35 Scott A. Chilcutt and *Gary J. Cwick

Comparison of the 1982 and 1997 El Nino Events and Their Effects on the Rainfall in California

Major: Geoscience

Faculty Sponsor: Dr. Gary Cwick

9:35-9:50 Deepa Patel

The Impeachment Process of Judges

Major: Political Science (Pre-Law)
Faculty Sponsor: Dr. Ginny Moore

9:50-10:00 Break

**Session 2**

10:00-10:15 John Becthold

Manuel Rojas: An Analysis of Three of His Short Stories

Major: Spanish Education

Faculty Sponsor: Dr. Lynne F. Margolies

10:15-10:30 Jefferson McGuire

Stabilizing America: A Historical Review of Psychotropic Medication

Major: Social Work

Faculty Sponsor: Dr. Fred Nute, Mineral Area Community College

10:30-10:45 Hugh Eugene Conway and Peter Karanja

Selection Site Analysis for Mosquito Trap Sites with special emphasis on Culex pipiens complex the Northern House Mosquito (Culex pipiens pipiens) and the Southern House Mosquito (Culex pipiens quinquefasciatus)

Major: Biology

Faculty Sponsor: Dr. Christina Frazier

10:45-11:00 Break

**Session 3**

11:00-11:15 Heather Raybourn
E*Trade Group Inc: Full of Problems and Promises

*Major: Finance*

*Faculty Sponsor: Dr. Ginny Moore*

11:15-11:30 *Mary L. Ristow*

The Network Architectural Model and The Value of Proper Documentation During Design and Implementation of Computer Networking Systems

*Major: Industrial Technology*

*Faculty Sponsor: Dr. Raj Desai*

11:30-11:45 *Donna Moore*

School-Based Mentoring Programs: A Proposal to Unite Role Models with At-Risk Youth

*Major: Social Work*

*Faculty Sponsor: Dr. Ruth Stone Schulte*

11:45-12:00 *Spencer C. Hedgepeth and Choong Kwon Lee*

Productivity vs. Benefitability: A Correlation Analysis of How Beneficial Product Information Technology is to Independent Banks in the State of Missouri

*Major: Master of Business Administration*

*Faculty Sponsor: Dr. Peter Kerr*

12-12:15 *Mohammed Ali and Candace J. Wiggin*

Study of Oxidation of Alcohols to Carbonyl Compounds With Silica Gel Supported Jones Reagent (SJR) in Organic Solvents

*Major: Chemistry*
Faculty Sponsor: Dr. Mohammed Ali

12:15-1:35 Panel Discussion on the Value of Conducting Undergraduate Research
Led by President Nitzschke

1:35-1:45 Break

**Concurrent Session 4, Ballroom**

1:45-2:00 Joseph Brewer
Cunningham, Chaos & the Value of Chance in Everyday Life
Major: Interdisciplinary: Physics, Philosophy, & Dance
Faculty Sponsor: Dr. Marc Strauss

2:00-2:15 Amy M. Dooley
Jane Austen and the Importance of Abstract Language
Major: English
Faculty Sponsor: Dr. Henry Sessoms

2:15-2:30 Arthur L. Matthews
Homosexual Parenting: Issues and Implications in Child Development, Custody and Counseling
Major: Masters in Community Counseling
Faculty Sponsor: Dr. Cheryl Milde
2:30-2:45 Jenny Reinhold

The Development of Inter-American Cooperation in the Western Hemisphere

Major: French

Faculty Sponsor: Dr. Alice J. Strange

2:45-3:00 Steven J. Haston

The Integrity of the Games

Major: Public Relations

Faculty Sponsor: Dr. Ginny Moore

**Concurrent Session 4, Indian Room**

1:45-2:00 Christine Smith

Determining the Effectiveness of Using LANDSAT TM Data to Identify the Chemical Compositions of Rock Formations in Wyoming

Major: Geoscience

Faculty Sponsor: Dr. Gary Cwick

2:00-2:15 *Mohammed Ali and Kirti Patel

Study Of The Oxidation Of Hydroquinones To Quinones With Silver (I) Oxide

Major: Biology

Faculty Sponsor: Dr. Mohammed Ali

2:15-2:30 Christopher Todd Hittinger
Isolation and Characterization of a Putative Regulatory Gene From *Schizophyllum commune*

*Major:* Cellular/Molecular Biology and Chemistry

*Faculty Sponsor:* Dr. Allen Gathman

2:30-2:45 *Jamie Chitester, *Bret Draayer, and Sterling Windsor*

**Radio Astronomy With a Satellite Dish**

*Major:* Engineering Physics; Physics

*Faculty Advisor:* Dr. Bret Draayer

2:45-3:00 *Daniel Jung, John Mayfield, Matt Jaynes, and *David Starrett*

**Biochemistry of Avocado Fruit Ripening**

*Major:* Interdisciplinary

*Faculty Sponsor:* Dr. David Starrett

3:00-3:15 Break

**Concurrent Session 5, Ballroom**

3:15-3:30

3:30-3:45 *Holley Amber Hargraves*

**Jorge Luis Borges**

*Major:* Computer Science
Faculty Sponsor: Dr. Lynne F. Margolies

3:45-4:00 Allen D. Martin, Glenn A Zapfe, and Hayden T. Mattingly

Abundance of the Brook Darter, *Etheostoma burri*, in Selected Black River Tributaries

*Major: Biology (Aquatic)*

*Faculty Sponsor: Dr. Rex M. Strange*

4:00-4:15 Kelly Quigley

Mariano Azuela: How His Works Reflect the Mexican Society After the Revolution

*Major: English-Writing*

*Faculty Sponsor: Dr. Lynne F. Margolies*

**Concurrent Session 5, Indian Room**

3:15-3:30 John Mayfield, Daniel Jung, Matt Jaynes, and David Starrett

Update on Cloning of α-Galactosidase and β-Galactosidase from Ripening Avocado Fruit

*Major: Interdisciplinary*

*Faculty Sponsor: Dr. David Starrett*

3:30-3:45 Matt Jaynes, John Mayfield, Daniel Jung, and David Starrett

Using Antisense Technology to Investigate Avocado Fruit Softening

*Major: Biology*

*Faculty Sponsor: Dr. David Starrett*
Wednesday Paper Presentations -- Ballroom

**Session 1**

9:00-9:05 Opening Remarks

9:05-9:20 **Kelly Epplin**

Paternity Analysis In Sharp-Tailed Sparrows Using Microsatellite PCR

Major: Cell and Molecular Biology

Faculty Sponsor: Dr. Allen Gathman

9:20-9:35 **Cathryn R. Criddle**

Themes and Symbolism in Works by Juan Rulfo

Major: Psychology

Faculty Sponsor: Dr. Lynne F. Margolies

9:35-9:50 **Kristopher H. McConnell**

Isolation of Chitin Deacetylase Gene of Schizophyllum commune.

Major: Biology

Faculty Sponsor: Dr. Allen Gathman

9:50-10:05 Break

**Session 2**
10:05-10:20 Donya Hill

In the Kitchen with Bubba: A Preliminary Examination of Meth Cookers at the Federal Level

Major: Criminal Justice/Psychology

Faculty Sponsor: Dr. John Wade

10:20-10:35 Jessica A. Klinge

Las diferencias en los dialectos del español (The Differences in Spanish Dialects)

Major: Elementary Education

Faculty Sponsor: Dr. Leon C. Book

10:35-10:50 *Mohammed Ali and Susan Stricklin

Silica Gel Supported Pyridinium Tribromide: An Efficient Reagent For Oxidation Of Sulfides To Sulfoxides In Methylene Chloride

Major: Biology

Faculty Sponsor: Dr. Mohammed Ali

10:50-11:05 Break

**Session 3**

11:05-11:20 Cathryn R. Criddle

Relevance of Position Cues in Serial Learning in Rats

Major: Psychology

Faculty Sponsor: Dr. Richard A. Burns
11:20-11:35 Lynne Ahlgren

Rosario Ferré: A Literary Voice of Today’s Puerto Rico

Major: Spanish

Faculty Sponsor: Dr. Lynne F. Margolies

11:35-11:50 Joseph Brewer

"Dipole Relaxation Studies of Water Using a Microwave Spectrometer"

Major: Interdisciplinary (Physics)

Faculty sponsor: Dr. Jai Dahiya

11:50-12:05 David Jenkins

Amparo Dávila: A Unique Vision of the Short Story

Major: Spanish

Faculty Sponsor: Dr. Lynne F. Margolies

12:05-12:30 Break

**Keynote Speaker**

12:30-1:15 Dr. Stephen Davis will present the keynote address entitled, "Academic Dishonesty in the 1990’s: A Decade Long Student Investigation"

Dr. Stephen Davis is Professor and Chair of Psychology at Emporia State University. Dr. Davis received the Distinguished Teaching Award for his exemplary contributions to the teaching of Psychology. Dr. Davis stands out as one who involves his students extensively in multiple research endeavors. Dr. Davis has published over 200 journal articles and made over 600 conference presentations, many with student co-authors.
Dr. Davis has served as the President of Division Two of the American Psychological Association, President of the Southwestern Psychological Association, as well as President of the Southern Society for Philosophy and Psychology, and national President of Psi Chi. He is currently the editor of the Psi Chi Journal of Undergraduate Research.

Receiving his B.A. in psychology and M.A. in general-experimental psychology at Southern Methodist University, Dr. Davis then pursued his doctorate in general-experimental psychology at Texas Christian University in 1972. He taught at King College in Bristol, Tennessee and at Austin Peay State University in Clarksville, Tennessee. In 1979, Dr. Davis joined the faculty at Emporia State University.

Outside of teaching, Dr. Davis’s interests lie with preserving traditional American Folk music and collecting baseball cards, belt buckles, and beer cans.

**Session 4**

1:30-1:45 Erin E. Klinge

The Shotgun House: A Hidden Architectural Treasure

Major: Secondary Education-Social Studies

Faculty Sponsor: Dr. Michael Roark

1:45-2:00 Jamie Johnston

Characterization of a chymotrypsin-like serine protease from Schizophyllum commune.

Major: Cellular and Molecular Biology

Faculty Sponsor: Dr. Walt Lilly

2:00-2:15 Kari A. Williams

"A Study of the Life and Works of Marco Denevi"

Major: Mass Communication/Journalism

Faculty Sponsor: Dr. Lynne F. Margolies
2:15-2:30 Jolean Logan

*The Effects of Attachment Style on Conflict Resolution*

*Majors:* Psychology and Criminal Justice

*Faculty Sponsor:* Dr. Leslee Pollina

2:30-2:35 Break

**Concurrent Session 5, Ballroom**

2:35-2:50 Phillip N. Statler, Cathy J. Guffy, and Clayton L. Sneed

*Geophysical Methods For Locating Buried Metallic Objects In Shallow Subsurface*

*Majors:* Geoscience

*Faculty Sponsor:* Dr. Issa El-Hussain

2:50-3:05 *Mohammed Ali and Melinda Niedbalski*

*Silica Gel Supported Ceric Ammonium Nitrate (CAN) Oxidation Of Hydroquinones And 1,4-Dimethoxy Benzenes To Quinones In a Non-queous Media*

*Majors:* Biology

*Faculty Sponsor:* Dr. Mohammed Ali

3:05-3:20 Heather Denihan

"Life and Death"

*Majors:* Secondary Education-Spanish

*Faculty Sponsor:* Dr. Lynne F. Margolies
2:35-2:50  **Bethany Holt**

**Gabriel Garcia Marquez: Influences of His Life and How They Relate to His Works**

*Major:* Secondary Education/Spanish

*Faculty Sponsor:* Dr. Lynne F. Margolies

2:50-3:20  

**Matt Lacy, Kara Benjamin, Travis Partney, Jeni Koebel, Connie Dudley, Mary Moyer, Travis Puhse, and Nathan Wills**

**The Case for Spending Limits**

*Major:* Pre-Law/Interdisciplinary

*Faculty Sponsor:* Dr. Larry Underberg

2:50-3:20  

**Travis Partney, Jeni Koebel, Matt Lacy, Kara Benjamin, Connie Dudley, Mary Moyer, Travis Puhse, and Nathan Wills**

**The Case Against Spending Limits**

*Major:* Pre-Law/Interdisciplinary

*Faculty Sponsor:* Dr. Larry Underberg

3:20-3:30 Break

**Session 6**

3:30-3:45  **Mohammed Ali and Andrea Welker**
Oxidation Of Hydroquinones To Quinones With Silica Gel Supported Jones Reagent (SJR) In Methylene Chloride

Major: Pre-medicine

Faculty Sponsor: Dr. Mohammed Ali

3:45-4:00 Mike Cunniff

Determination of the Stability Constant for the Formation of a Complex Ion Between Mg$^{2+}$ and F$^-$ Ions

Major: Chemistry Education

Faculty Sponsor: Dr. Mike Readnour

4:00-4:15 Brian A. Hicks


Major: Human Resource Management

Faculty Sponsor: Dr. Ginny Moore

4:15-4:30 Emily Hotop

Legislation and Ethical Considerations Surrounding Fertility Treatments

Major: Social Work

Faculty Sponsor: Dr. Ginny Moore

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Poster Presentations

Tuesday 9:05-10:00, University Room

Tamika Barsh
Creative Dance Appreciation Composition

Faculty Sponsor: Dr. Marc Strauss

Margery Wickham
The Effects of Personality Disorders on Anger/Depression
Major: Psychology
Faculty Sponsor: Dr. William E. Snell, Jr.

Jillian Pyle
Creative Dance Appreciation Composition
Faculty Sponsor: Dr. Marc Strauss

*Mohammed Ali and Joe Cipriano
Oxidation Of Benzyl Alcohols To Benzaldehydes With Silica Gel Supported Ceric Ammonium Nitrate (CAN) In Methylene Chloride
Major: Biology
Faculty Sponsor: Dr. Mohammed Ali

Monica McLain
Creative Dance Appreciation Composition
Faculty Sponsor: Dr. Marc Strauss

Tuesday 1:45-2:45, Riverboat Room
Kandice Candelarie
A Victim Impact Panel Assessment

Major: Criminal Justice

Faculty Sponsor: Dr. Linda Ferrell

Jahmille Ross

Creative Dance Appreciation Composition

Faculty Sponsor: Dr. Marc Strauss

Damon Leach

Synthesis of Alkenes from Alcohols, Alkyl Halides, and Tosylates

Major: Interdisciplinary Studies

Faculty Sponsor: Dr. Bjorn Olesen

Isabela Slowikoska

Creative Dance Appreciation Composition

Faculty Sponsor: Dr. Marc Strauss

Mary Sahrman and Sharon Armstrong

The Relative Similarities and Differences of Monozygotic and Dizygotic Twins

Major: Criminal Justice

Faculty Sponsor: Dr. Martha S. Zlokovich

Danielle Morgan
Creative Dance Appreciation Composition

Faculty Sponsor: Dr. Marc Strauss

Wednesday 2:30-3:30, University Room

Jean Gilman

Creative Dance Appreciation Composition

Faculty Sponsor: Dr. Marc Strauss

Kathryn K. Allgier

The Effects of Personality Disorders on Anger and Depression

Major: Psychology and Speech Communication

Faculty Sponsor: Dr. William E. Snell, Jr.

Courtney Hinds

Creative Dance Appreciation Composition

Faculty Sponsor: Dr. Marc Strauss

Stephen McGinnis

Creative Dance Appreciation Composition

Faculty Sponsor: Dr. Marc Strauss