April 24-25, 2015
UNDERGRADUATE SYMPOSIUM
on Research and Creative Activity
April 24-25, 2015

Hosted by
THE CENTER FOR UNDERGRADUATE RESEARCH
and
THE COLLEGE OF ARTS and LETTERS

and made possible through the generous support of
DONALD DRAPEAU
2015 UNDERGRADUATE SYMPOSIUM on Research and Creative Activity

FRIDAY, APRIL 24: MARSH AUDITORIUM

4:00 Welcome: President Bennett
   Introduction to Symposium: Amy Miller
   Introduction of Speaker: Maureen Ryan

4:30 Plenary Lecture: Claire Brantley,
   Executive Brand Manager, McGraw-Hill

5:15-6:00 Dance performance

Reception will follow in the lobby.

SATURDAY, APRIL 25: LIBERAL ARTS BUILDING

7:30 Coffee and light breakfast items in the lobby

8:00-9:15 Concurrent paper sessions I

9:15-10:15 Poster presentations

10:15-11:30 Concurrent paper sessions II

11:30-1:15 Lunch, Powerhouse Restaurant
   Student Art Exhibit, George Hurst Building 113

**Note that attendees may choose to visit the art exhibit prior to lunch in order to stagger lunch times and cut down on the wait at the buffet.

1:15-2:30 Concurrent paper sessions III

2:45-4:00 Concurrent paper sessions IV

4:00-5:00 Theatre Showcase – Gonzalez Auditorium – LAB 108
   Panel on Undergraduate Research – LAB 101
   • Dr. Gordon Cannon, Vice-President for Research
   • Dr. Douglas Masterson, Center for Undergraduate Research
   • Dr. Susan Bourland, McNair Scholars Program

5:15-6:30 Awards – Gonzalez Auditorium – LAB 108
ABOUT THE SYMPOSIUM

The Symposium began as an annual event in the Department of History. In 2012, alum Donald Drapeau began sponsoring a series of cash prizes for the winners. In 2013, the Department of History expanded the Symposium to include students from across campus. The Symposium has grown since that time from a one-day conference with only paper presentations to a two-day event that includes art, dance, music, and theatre as well as paper and poster presentations. This year, approximately 300 people will attend the Symposium with 140 students presenting.

Donald Drapeau completed his Bachelor of Science in History at Southern Miss before going on to earn a Masters degree at the University of Pennsylvania. He has enjoyed great success as Founder and Chief Executive Officer of the Man-Drapeau group of companies, which employed financial engineers and maintained offices on multiple continents. In the 1970s, he founded Drapeau and Co. and became a member of the Chicago Mercantile Exchange. He was also a Fullbright Fellow in Belgium and a Kress Fellow at the Harvard Business School. Mr. Drapeau is a passionate advocate of undergraduate students at Southern Miss and enjoys the opportunity to foster their sense of initiative, personal drive, and lifelong commitment to education and personal growth. His passion has led him to provide cash prizes for the best participants in each category in the annual Undergraduate Symposium.
2015 PLANNING COMMITTEE

This year’s Symposium was organized and developed through the hard work of a university-wide committee, which met throughout the 2014-2015 year to put this event together. These faculty and staff members gave of their time and energy so that students and faculty could enjoy a successful Symposium. Thanks to all of them for their service!

Jo Ann Johnson
Center for Undergraduate Research/Office of the Vice-President for Research

Susan Bourland
McNair Scholars Program

Matthew Casey
History

Carol Connell
Nutrition and Food Systems

Marie Danforth
Committee Co-chair Anthropology and Sociology

Dave Davies
Mass Communication and Journalism

Jamye Foster
Marketing and Fashion Merchandising

Stephen Haller
University Libraries

Sabine Heinhorst
Chemistry and Biochemistry

Dawne Kennedy
Southern Miss Graduate

Michael Madson
Psychology

Amy Chasteen Miller
Committee Co-chair College of Arts and Letters

Marek Steedman
Interdisciplinary Studies

Lachel Story
College of Nursing

Danielle Sypher-Haley
College of Arts and Letters

Ellen Weinauer
Honors College

Thank you also to Rusty Rolison for coordinating event logistics, to Danielle Sypher-Haley for creating the website and program, and to Lashonda Thompson for assistance with budget management.

Finally, thank you to Donald Drapeau, whose vision for a celebration of undergraduate work at Southern Miss has driven this whole enterprise and made a difference for many students.
FACULTY JUDGES

Thank you to all the faculty members who generously gave their time to review and evaluate abstracts and presentations.

- Allison Abra, Department of History
- Mac Alford, Department of Biological Sciences
- John Bailey, College of Nursing
- Biju Bajracharya, School of Computing
- Jonathan Barron, Department of English
- Jonathan Beedle, Department of Curriculum Instruction and Special Education
- Marija Bekafigo, Department of Political Science, International Affairs, and International Development
- Ann Blackwell, Department of Child and Family Studies
- Cindy Blackwell, Department of Mass Communication and Journalism
- Ann Blankenship, Department of Educational Leadership
- Daniel Capper, Department of Philosophy and Religion
- Craig Carey, Department of English
- Matthew Casey, Department of History
- Carol Connell, Department of Nutrition
- Marie Danforth, Department of Anthropology and Sociology
- Anita Davis, School of Music
- Matthew Donahue, Department of Chemistry and Biochemistry
- Andrew Evans, Department of Coastal Sciences
- Dana Fennell, Department of Anthropology and Sociology
- Jamye Foster, Department of Marketing and Merchandising
- Rebecca Morgan Frank, Department of English
- Jeanne Gillespie, Arts and Letters Dean’s Office
- Kevin Greene, Department of Interdisciplinary Studies
- Laura Guglani, Department of Foreign Languages and Literatures
- Song Guo, Department of Chemistry and Biochemistry
- Edward Hafer, School of Music
- Alen Hajnal, Department of Psychology
- Steve Haller, University Libraries
- Susan Hart, Department of Collaborative Nursing Care
- Bridget Hayden, Department of Anthropology and Sociology
- Sabine Heinhorst, Department of Chemistry and Biochemistry
- Jennifer Hotzman, Department of Anatomy
- Nicolle Jordan, Department of English
- Claire Kimberly, Department of Child and Family Studies
- Ann Marie Kinnell, Department of Anthropology and Sociology
- Jennifer Lemacks, Department of Nutrition and Food Systems
- Elizabeth Lenz-Hill, Department of Dance
- Kelly Lester, Department of Dance
- Chin-nu Lin, College of Nursing
- Paul Linden, School of Mass Communication and Journalism
FACULTY JUDGES (cont’d)

- Leslie Locke, Department of Educational Leadership
- Courtney Luckhardt, Department of History
- Michael Madson, Department of Psychology
- Douglas Masterson, Department of Chemistry and Biochemistry
- Tina Masterson, Department of Chemistry and Biochemistry
- Amy Chasteen Miller, Department of Anthropology and Sociology
- Mark Miller, Department of Geography and Geology
- Anton Netchaev, School of Computing
- John Perry, Department of Mathematics
- Ngoc Phan, Department of Political Science, International Affairs, and International Development
- Julie Pigza, Department of Chemistry and Biochemistry
- Rebecca Powell, Department of English
- Vijay Rangachari, Department of Chemistry and Biochemistry
- Julie Reid, Department of Anthropology and Sociology
- Laura Richard, School of Social Work
- Keltoum Rowland, Department of Foreign Languages and Literatures
- Donald Sacco, Department of Psychology
- Martina Sciolino, Department of English
- Jae-Hwa Shin, School of Mass Communication and Journalism
- Marek Steedman, Department of Interdisciplinary Studies
- Steven Stelk, Department of Finance, Real Estate and Business Law
- Elena Stepanova, Department of Psychology
- Robson Storey, Department of Polymer Science and High Performance Materials
- Lachel Story, College of Nursing
- Heather Stur, Department of History
- Rebecca Tuuri, Department of History
- Alexandra Valint, Department of English
- Steven Venette, Department of Communication Studies
- Shiao Wang, Department of Biological Sciences
- Shuyan Wang, Department of Curriculum Instruction and Special Education
- John Warrick, Department of Theatre
- Mark Waymire, School of Music
- Ellen Weinauer, Honors College
- Joseph Weinberg, Department of Political Science, International Affairs, and International Development
- Amanda Williams, Department of Child and Family Studies
- Lindsay Wright, Department of Child and Family Studies
- Gallayanee Yaoyuneyong, Department of Marketing and Merchandising
- Kyle Zelner, Department of History
OUR CAMPUS SPONSORS

Thank you to the wonderful donors who generously provided support for the Symposium. Please take the time to thank these sponsors when you stop by their campus offices!

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- McNair Scholars Program

SPECIAL THANKS

We’d like to extend a special thank you to our supplementary prize donors for their kind support of our student scholars.

Mississippi INBRE
IDeA Network of Biomedical Research Excellence

The Mississippi INBRE program is supported by award number P20 GM103476 from the National Institutes of General Medical Science.

Best Paper on a Biomedical Topic (1st and 2nd place winners)

The Mississippi Community Cookbook Project

mscommunitycookbooks.usm.edu

Best Paper on a Food-Related Topic

DALE CENTER FOR THE STUDY OF WAR & SOCIETY

Virginia Culpepper Memorial Award for Best Paper on War and Society
OUR LOCAL SPONSORS

Please help us thank our local sponsors by letting them know Hattiesburg appreciates businesses that support student success at Southern Miss!
We are delighted to welcome Claire Brantley back to the Southern Miss campus tonight to serve as our plenary speaker for the Undergraduate Symposium on Research and Creative Activity.

Claire Brantley earned Bachelor’s and Master’s degrees from The University of Southern Mississippi before joining Harcourt Brace as an editor in 1993. She initially worked on philosophy, music, and political science titles, and then eventually she worked on Harcourt’s literature textbooks. She joined Pearson Education’s sales division in 2000 as a field based editor; by the time she left Pearson in 2013, she was Vice President of Sales for the Southeast Region, managing a sales team of 60 people and approximately $150 Million in revenue. She joined the McGraw-Hill Higher Education group in January of 2013 as Executive Brand Manager, responsible for managing the portfolio of products for the English list. Her digital product—Connect Composition—won Product of the Year in January 2015.

Claire Brantley is a native of Gulfport, Mississippi. She now lives in Tampa with her music professor husband Tom (University of South Florida) and their son Carter, who is a left-handed pitcher for his high school baseball team, a cellist with his school’s orchestra, and a bass player for his school’s jazz band.
ABOUT THE COLLEGE OF ARTS and LETTERS

The College of Arts and Letters is home to four arts programs, four social sciences, four humanities, two military science programs, and Southern Miss’s Department of Interdisciplinary Studies.

Our mission is to instill and nurture intellectual curiosity in our students, to teach them to see the world from different points of view, and to help them become active, productive citizens of their world with the tools they need to make the world a better place. We are proud of the diversity in our college, and we believe the best conversations happen when people of different backgrounds engage the issues and learn to understand each other.

Arts and Letters places a strong emphasis on giving students of all majors a strong foundation on which to build the rest of their education. We offer a range of classes in the core curriculum, and place particular importance on teaching writing, speaking, and research skills. We are the curators of the Student Success website (www.usm.edu/success), a one-stop shop for students, faculty, staff, and parents to find information on all the resources available on campus to help students have a fruitful and fulfilling experience at Southern Miss.

We are also proud to offer the Hattiesburg community music and dance concerts, theatre, art exhibitions, lectures, reading, and workshops—most of it free of charge. There’s something going on almost every night of the week—view our public events at artsandlettersnow.usm.edu.
The USM Center for Undergraduate Research (CUR) was established in October 2011. The overall mission of the center is to enhance the undergraduate experience by promoting and supporting student-faculty collaborations in research, creative projects and scholarship. The benefits of active participation in faculty-mentored research are myriad both to the student experience and the University community at large.

CUR hosts workshops every semester designed to enhance the research and creative activity experience. Check out this semester’s schedule at usm.edu/research/professionalization-workshops.

CUR is also the home of Eagle SPUR, the Scholars Program for Undergraduate Research. Undergraduates who are conducting independent research or creative activity in collaboration with a faculty affiliate may compete for up to $1000 to support travel, to purchase equipment and supplies, and/or to be used as a stipend. Learn more about Eagle SPUR at usm.edu/research/eagle-scholars-program-undergraduate-research-eagle-spur.
8:00-9:15

LAB 101 Molecular Interactions in Health and Disease

Hybrid DNA and PNA Four-way Junctions (4WJs) Are Readily Recognized by DNA Binding Proteins
FENIL PATEL, BIOCHEMISTRY

Granulins as Potential Inflammatory Mediators in Alzheimer’s Disease
RANDI REED, BIOCHEMISTRY

Nuclear Factor kappa-B Activation During In Vitro Differentiation of Mouse Embryonic Stem Cells
NATALYA ORTOLANO, MICROBIOLOGY

LAB 102 Making and Analyzing New Chemicals

Progress Toward the Total Synthesis of the Lycopodium Alkaloid Palhinine A
ANTHONY ABSHIRE, CHEMISTRY

Finding a General and Tunable Method for Ester to Ether Reduction
SARAH KELLEY, HISTORY CHEMISTRY

An Approach Towards the Lycopodium Alkaloid Magellanine Utilizing the Tsuji-Trost Variant of the Winstein-Masamune Spirocyclization
ERIN REALINI, BIOCHEMISTRY

LAB 103 Health and Well-Being in Mississippi Lives

People and Death: How Has It Changed over the Years on the Mississippi Gulf Coast?
LINDSEY MITCHELL, ANTHROPOLOGY

The Missing Link: The Impact of Nutrition Education and the School Lunch Program
RACHEL CALHOUN, NUTRITION and DIATETICS

Mississippi Strong: Family Photovoice Project
CHAUNCEY JERNIGAN, CHILD and FAMILY STUDIES
LAB 203  Sexuality, Media, and Public Perception

Social Media’s Influence on Sexual Behavior
DEVIN DRAWDY, PSYCHOLOGY

Women’s High-Tech Erotic Literature Engagement and Relationship Well-Being Implications for Family Life Education and Marriage and Family Therapy
LEXI POWELL, CHILD and FAMILY STUDIES

Evidence for the Lipstick Effect at the Level of Automatic Visual Attention
AARON BERMOND, PSYCHOLOGY

LAB 204  Experiencing Place and Culture

You Are What You Eat: Gastronomy and Geography of Southern Spain
KATHERINE PERRY, GEOGRAPHY AND SPANISH

Chaos and Destruction: Hurricane Camille’s Effect On the Role of Government Rebuilding
KEITH HARALSON, HISTORY

Walk This Way: The Conception and Use of Space through Walking in Hattiesburg
AMY BALL, ANTHROPOLOGY

Perceptions of West and East Hattiesburg
JAMES HAMIL, MARKETING
LAB 205  Literature, Romanticism, and Cultural Criticism

The Delusion of “Universal Connections”: Saul Bellow’s Herzog
NATALIE GRINER, ENGLISH AND PHILOSOPHY

Frankenstein: Science and Morality in the 1831 Edition
ADDREONNA SEGER, ENGLISH

Out of the Attic: Agency and Narratives of Mental Illness by David Foster Wallace and Lauren Slater
ERIN MCLEOD, ENGLISH

Sehnsucht in the Heine Lieder of Schubert’s Schwanengesang
KATHLEEN BRANDAU, MUSIC

LAB 208  Music, Film, and Cultural Impact

Cultural Repercussions from the Mechanization of Music
RACHAEL REEVES, POLITICAL SCIENCE

Los Fantasmas de los Trovadores (trans. Ghosts of the Troubadours): The Nueva Trova and Its Failure to Impact Cuban Expats
DERRICK SHELBY, HISTORY

From King Leonidas to Lord Farquaad: Popular Culture and How Authority is portrayed in Popular Film
SOLAI WYMAN, POLITICAL SCIENCE

The Birth of a Movement: The Rise of the NAACP Against D.W. Griffith’s The Birth of a Nation
AUSTIN HOWELL, ECONOMICS
1. Development of Artificial Feeding for *Amblyomma* Species  
PAIGE ALLEN, MICROBIOLOGY

2. Narcissism and Late Adolescent Friendships: Perceived Closeness, Cooperation, Competitiveness, and Friendship Quality  
SUZANNE AMADI, PSYCHOLOGY

3. 50 Shades of Grey: Women’s SEM Consumption and Intimate Relationships  
JAIME BAAS, CHILD AND FAMILY STUDIES

4. An Analysis of the Consumer Behavior of the Golden Growler  
ALISON BEESON, ENGLISH

5. Effects of Polymer Aggregation on the Chemical Doping Kinetics of P3HT with F4-TCNQ  
LINDSEY BONNETTE, CHEMISTRY

6. Reading Between the Lines: Comparing Historical Perceptions of the Panama Canal in Both Panamanian and US Mass Media  
KATHERINE BOSS, SPANISH AND BIOLOGICAL SCIENCES

7. Carbon Nanotube Loaded Epoxy Matrix Sample Preparation and Analysis for Rheometer and Hot Stage Microscope  
SAM BREEDEN, POLYMER SCIENCE

TAYLOR BUTTON, MARINE BIOLOGY

9. The Fractality of Body Movements Predicts Perception of Affordances  
JOSEPH CLARK, PSYCHOLOGY

10. The Investigation Of Specific Functions Of Two Superoxide Dismutases In Oxidative Stress Damage And Microbial Community Homeostasis In *Amblyomma maculatum*  
GARY CRISPELL, BIOLOGICAL SCIENCES
11. The Effects of Discrimination on Alcohol Craving and Stress  
CHRISTOPHER CRUZ, PSYCHOLOGY

12. A Reassessment of Species Boundaries in the *Euphorbia corollata* complex (*Euphorbiaceae*) of Eastern North America  
ANDREW FENNELL, BIOLOGICAL SCIENCES

JARED GLORIA, BIOLOGICAL SCIENCES

AMANDA HALL, GEOGRAPHY

15. Errors in Recognition of Positive and Negative Affect: Relation to ADHD Symptoms Among Preschoolers  
ANNALISE HAYS, PSYCHOLOGY

16. Phenazine Metabolites as Pathogenicity Factors in *Burkholderia* Species  
SAMUEL HENDRY, MICROBIOLOGY

17. A Content Analysis of the 1964 Mississippi Freedom Summer Viewed as Public Relations Efforts Using the Social Change Model  
HANNAH JANE HILL, PUBLIC RELATIONS

18. In Vivo Analysis of the Gene Products Responsible for Polyunsaturated Fatty Acid Flux into Seed Oils  
NISCHAL KARKI, BIOCHEMISTRY

19. Design of Biomimetic Adhesives using Thiol-ene Photopolymerization  
LAKEN KENDRICK, POLYMER SCIENCE

20. Examining the Direct Relationship Between Social Anxiety and Safe Drinking Behaviors While Observing the Moderating Role of Self-Regulation  
SYDNEY KING, PSYCHOLOGY
21. The Effects of Aging on Auditory Duration Discrimination
RACHAEL LUCKETT, SPEECH PATHOLOGY AND AUDIOLOGY

22. Tiny Cells for a Tiny Animal
KODY MANSFIELD, BIOLOGICAL SCIENCES

23. Attitudes and Willingness to Use Music Therapy in Southern Mississippi
MEGAN MCDANIEL, NURSING

24. Perceptions of University Community Members Regarding Alcohol Restriction Policies and Sexual Assault Prevention Programs
KATHERINE MEEKER, CRIMINAL JUSTICE

25. The Effect of Increased Exposure to UVC Light on Colony Forming Units
T’KYLIA MOSS, MEDICAL LABORATORY SCIENCE

26. Understanding the Mechanism of Regulation of msaABCR operon in Staphylococcus aureus
MEGAN MULLIS, MARINE BIOLOGY

27. Increasing Fruit and Vegetable Intake in Children by Determining Preparation Preferences
LYDIA NICKENS, DIETETICS

LYDIA NICKENS, DIETETICS

29. Exploring the Experiences of Individuals Incarcerated for Arson
JOSHUA POLK, CRIMINAL JUSTICE AND PSYCHOLOGY

30. Relating Genetics and Culpability
ELISE POOD, INTERDISCIPLINARY STUDIES

31. The Muddled Organic Terminology
DEMI PRITCHARD, INTERDISCIPLINARY STUDIES
32. Predictors of Parental Stress in Families with a Child with ASD: Relations with ASD Severity, Cognitive Functioning, and Externalizing Behaviors
ROBYN RILEY, PSYCHOLOGY

33. The Effects of Recreational Rock Climbing on Vascular and Nonvascular Plant Communities in Southeastern Tennessee
CAITLIN RUBY, GEOGRAPHY

34. Combining the Methods and Ideals of Modern Recording Techniques and Acoustic Ecology
JOSH SAULSBURY, RECORDING INDUSTRY PRODUCTION

35. Examining the Links Between Housing Status and College Student Alcohol Use Behaviors
KRAY SCULLY, PSYCHOLOGY

36. Identification of Branch Points in Mirtrons
BRITTON STRICKLAND, MICROBIOLOGY

37. Gender Differences in School Suspensions
KAELYN THOMAS, INTERDISCIPLINARY STUDIES

38. Caries and Diets among the Population of Shady Grove and Tipu Maya: A Comparative Study
CHRISTINA THOMAS, ANTHROPOLOGY

39. Does Level of Overall Career Interest Relate to a Student’s Academic Success?
ERIN WOOTEN, PSYCHOLOGY
10:15–11:30

LAB 101 Organismal Biology and Chemistry

Mosquito Performance Across Different Detritus Types for Invasive Species *Aedes albopictus* and Resident *Culex quinquefasciatus*: What Can Nutrient Analysis Tell?

J. Hunter Deerman, Biological Sciences

The Evolution of Body Size in the Order *Siluriformes*

Dave Campbell, Biological Sciences

Isolation of Chemical Constituents from *Gamochaeta coarctata* Harvested on The University of Southern Mississippi Campus

Kiah Zieells, Biological Sciences

LAB 102 Biomolecular Analysis

The Shortening of DNA Poly-A Tails during *E. coli* Replication

Alexandra Knopp, Biochemistry

Use of a Fluorescence Resonance Energy Transfer (FRET) Based Assay to Monitor the Conformational Changes of DNA Four-way Junctions (4WJs)

Matthew Dubuisson, Biochemistry

Synthesis of Colorimetric and Fluorescent Detectors for Psychoactive Compounds

Hannah Roberts, Biochemistry

Is the PCD Protein a Carboxysome Component?

Meredith Barefield, Biochemistry

LAB 103 Reading Women: Icons, Appropriation and Interpretation

A Queen’s Reputation: A Feminist Analysis of the Cultural Appropriations of Cleopatra

Chamara Moore, English

Empowering the Woman of Excellence: A Feminist Reading of Ruth

Emma Reeves, English Licensure
10:15–11:30

“Forget the Old . . . The New Wonder Woman is Here”: The New Wonder Woman and the Feminist Movement, 1968-1972
KRISTI FLEETWOOD, ENGLISH

Gustav Klimt and Fin-de-siècle Femininity
ANNA MCDONALD, ART

LAB 203 Religion and Society

On the Shoulders of Giants: Happiness and the Good Economy in Catholic Social Teaching
ERIN WINGERTER, ECONOMICS

Holy Holy Holy: Becoming an Agnostic in the Bible
JENNIFER PRESCOTT, ANTHROPOLOGY

How World War II Changed the British Chaplaincy
ANDREW SIMS, HISTORY

LAB 204 Propaganda, Media, and the Politics of Social Change

Edith Cavell and the Great War Propaganda
ERIN BLACKLEDGE, HISTORY AND POLITICAL SCIENCE

We The People: The Shortcomings and Inadequacies of a Government Controlled Petition Service
STEPHEN COBB, POLITICAL SCIENCE

A Comparative Study Of Middle Eastern Foreign Policy: How Middle Eastern Intelligence Communities Shape Current Event
MEGAN FINK, POLITICAL SCIENCE AND NEWS EDITORIAL JOURNALISM
10:15-11:30

LAB 205  Coercion, Migration, and Social Perceptions

Human Trafficking is the New Black: Combating the New Slavery  
SHEQUEENA BROWN, POLITICAL SCIENCE

Attitudes Toward Refugees Entering the United States  
SARAH BULLARD, SOCIOLOGY

The African Paradox: Rethinking the Atlantic Slave Trade  
PAUL PARICKA, HISTORY

LAB 208  Crime, Law and Deviance

Cultural Law vs. State Law: When is Homicide Acceptable?  
JOSHUA CAVES, ANTHROPOLOGY

“We do not choose to be attracted to children”: A Rhetorical Criticism of the Virtuous Pedophiles  
AUSTIN ALLEN, COMMUNICATION STUDIES

What the F***?  
MEREDITH MCPHAIL, ENGLISH AND SPANISH

Bernie Madoff’s Ponzi Schememena  
NATACHA RIVERA-RUIZ, COMMUNICATION STUDIES

LAB 101  Interaction and Inequality in the Contemporary Workplace

Reframing Marx and Weber for Service Labour in the 21st Century  
EMILY KATE RATLIFF, SOCIOLOGY

Construction of Goffman’s Roles in a McDonaldized Society  
ELIZABETH BURNETT, HISTORY

Reeling Customers In: How the Concessions Stand Plays a Role in Movie Theater Success  
ALIA ELKHATIB, SOCIOLOGY
LAB 102  Math and Its Applications

Computing Eigenfunctions of Differential Operators with Piecewise Constant Coefficients Using the Uncertainty Principle
ELYSE GARON, MATHEMATICS

A Time Integration Method for Nonlinear Ordinary Differential Equations
BRANDON HOLLINGSWORTH, MATHEMATICS

Calculation of the Energy Deposition in Atmospheric Gases Surrounding a Radioactive Source
CHASE WILSON, PHYSICS AND ASTRONOMY

LAB 103  War and Society

KIMBERLY BARTON, HISTORY

Military and Morals: Truman’s Decision to Drop the First Atomic Bomb
JAMIE HENTON, HISTORY

War and “The Closed Door Policy”: How NATO Has Influenced Ethnic Conflict in the Balkan Region
DRUANNA MOZINGO, POLITICAL SCIENCE

War Across Language: Cross-Cultural Variations Affecting The American And French Reporting of Civil War in the Central African Republic
CRAIG SMITH, FOREIGN LANGUAGES and LITERATURES
LAB 203  Beyond Stereotypes: Women, Family, and the Public Sphere

Ripple of Hope: The Implications of Hope and Hopelessness in La Casa en Mango Street and Cajas de Cartón
HANNAH BAKER, ENGLISH

The Diverse Agency of Noblewomen in Medieval England
JOANNA GUNNUFSEN, HISTORY (SOCIAL STUDIES LICENSURE)

Securing the Future at the Expense of Present Love and Desire: Relative Equality, Property Inheritance, and the Medieval Institution of Marriage
JOHN RIMANN, HISTORY

LAB 204  Inequality, Injustice, and Public Perception

Gossip Girl: Class and the Media
CELESTE HARLOW, CRIMINAL JUSTICE

Gendered Harassment and Sexism in Online Gaming: A Study of Women Gamers’ Experiences
MARY ALLISON MCDANIEL, SOCIOLOGY

Pink Triangles: The Persecution of Homosexuals in Nazi Germany
ZACHARY STEWART, HISTORY

Mississippi Gulf Coast Social Bias on Marriage Equality: A Lost Letter Experiment
STACIE SKAGGS, PSYCHOLOGY
LAB 205 Creating and Making Art Visible

From Grave to Stage: Reviving Hindemith’s Forgotten Works
ANDREW DEMOLAT, MUSIC EDUCATION

The Creation of the “Schrägeheit” Type Family
MEGAN MCCORMICK, GRAPHIC DESIGN

Dreamedia
WILLIAM REGAN, INFORMATION TECHNOLOGY

Movement Makes Art, Art Makes Movement
SAMANTHA RUSSELL, DANCE

LAB 208 Gender Inequality and Political Participation from a Global Perspective

Unveiling the Veil: Hijab Politics and the Women’s Fashion Rebellion in Post-Revolution Iran
ERIN WALLEN, HISTORY

Gender Inequality in the MENA Region: A Developmental Agenda Perspective
LAITH AGILY, POLITICAL SCIENCE

¿Dónde están todas las mujeres?: The Impact of Female Labor Force Participation on Female Political Participation in Latin
MURAKAMI CARPENTER, POLITICAL SCIENCE
LAB 101  Self-Assessment, Self-Perception, and Social Assumption

No Child Left Behind: The Need for Diversity in Children’s Literature
KIANNIA MITCHELL, MASS COMMUNICATION and JOURNALISM AND POLITICAL SCIENCE

The Big Five and Metacomprehension Accuracy
LARISA ALFSEN, PSYCHOLOGY

Cancer’s Bilateral Influence on Adolescent Self Perception: Dissecting the “Cancer Kid” in The Fault in Our Stars
MICHAEL LITTLE, ENGLISH

LAB 102  Gender, Race and Rhetoric in African American History

William Johnson, Manhood, and the Dilemmas of a Free Negro in the Old South
WHITNEY BAUCUM, HISTORY

Influential Women Civil Right Leaders
KIRSTEN HENSLEY, HISTORY

The Relationship Between Plantation Mistresses and the Slavery of the South
DEANNA PAYNE, HISTORY

The Rhetoric of Fannie Lou Hamer
DULANA REESE, COMMUNICATION STUDIES

LAB 103  Environment and Human Encroachment in Mississippi

Bottlenose Dolphin (Tursiops truncatus) Behaviors in the Presence of Active and Non-Active Shrimp Trawlers in the Mississippi Sound
CRYSTA LORENZ, MARINE BIOLOGY
2:45–4:00

A 500-year Streamflow Reconstruction for the Pascagoula River Using Tree Rings
BRENDAN SCOTT, GEOGRAPHY

Sampling Cutbanks Along Black Creek in DeSoto National Forest for Evidence of Historical Logging
HUNTER NEWMAN, GEOLOGY

Using Techniques of Dendrochronology to Date the Historic Deason Home, Ellisville, Mississippi, U.S.A.
CHRISTOPHER SPEAGLE, GEOGRAPHY

LAB 203 Crossing Boundaries: Discipline and Application of Theory

“Creating a Disciplinary Ecosystem” Is a Product of Interdisciplinary Study: An Integration of Business, Family Studies, and Applications of Teaching
DELORES GOUDY, INTERDISCIPLINARY STUDIES

Why Psychology Is Not Reducible to Neuroscience
CHRISTOPHER CRUZ, PSYCHOLOGY

The Popular Culture Theory of Aristophanes
BELEN PLAZA, HISTORY

(Zombie) Mad Pain and (Zombie) Martian Pain: A Critique of Functional Analyses of Mental Concepts
DYLAN KITTRELL, PHILOSOPHY

LAB 204 Politics and Policy in the Deep South

Demystifying Dixie: A Guide to the Essentials for Understanding the South Since 1865
CARL MCINNIS, ENGLISH

“Last Flag Standing”: Why Mississippi Voters Retained the Confederate Symbol on the State Flag in the 2001 Referendum
JOSHUA VON HERMANN, POLITICAL SCIENCE

Is Policy Implementation Necessary? An Empirical Test for Overrepresentation of Black Youth Arrests in Mississippi
ASHLEY MCKNIGHT, POLITICAL SCIENCE
LAB 205  Culture and Consumerism

Toddler and Infant Clothing and Gender  
CELESTE HARLOW, CRIMINAL JUSTICE

McDonald’s: Are They Selling Us More Than Hamburgers?  
KARIE MOONEY, PUBLIC RELATIONS

Archenemies: A Media Analysis of Ethos and Hegemony as Brand Recognition in a McDonald’s Commercial  
ALEXIS JONES, PUBLIC RELATIONS

LAB 208  Health Interventions and Outcomes

The Effect of Balance Training on Disruptive Behaviors in Children with Autism Spectrum Disorder  
CLAIRE SCATES, KINESIOThERAPY

Risky Business: High-Risk Adolescent Behavior and Impact on Adulthood Income  
CELESy SHADDOX, POLITICAL SCIENCE AND ECONOMICS

College Professors’ and Students’ Perceptions towards College Students Who Stutter  
PATRICIA CHASTAIN, SPEECH and HEARING SCIENCES

The Effects of Fetal Alcohol Syndrome  
JAMIE ANDERSON, INTERDISCIPLINARY STUDIES

LAB 108  Towards New Biomedical Therapeutics

The Development of Hybrid DNA-PNA Four-Way Junctions as Inhibitors Against the Proinflammatory Cytokine High Mobility Group B1, HMGB1  
SANA SOLANGI, BIOCHEMISTRY

G-quadruplex-hemin Complex as a Possible Therapeutic to Extracellular Hemin in Sickle-cell Crisis?  
JOHN ADAMS, BIOCHEMISTRY

Toward the Synthesis of Analogues of Tuberculosis Medication - Ethambutol  
KRISTINA HANEY, CHEMISTRY
4:00–5:00

Intermezzo

Theatre Showcase
LAB 108–Gonzalez Auditorium
STUDENTS FROM THE ARTS and LETTERS THEATRE DEPARTMENT

Panel: How Can I Get Started in Research as an Undergraduate?
LAB 101

DR. GORDON CANNON, VICE-PRESIDENT FOR RESEARCH
DR. DOUGLAS MASTERSION, CENTER FOR UNDERGRADUATE RESEARCH
DR. SUSAN BOURLAND, MCNAIR SCHOLARS PROGRAM

5:15-6:00

LAB 108   Awards Ceremony

Our students are competing today for over $15,000 in prizes, sponsored by Southern Miss alum Donald Drapeau. Please join us for the awards ceremony as we recognize all our competitors for their hard work and dedication to research and creative activity and as we award prizes to the top students in each category.
College can be tough. We can help.

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majors ♦ scholarships ♦ financial
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