



ugs

UNDERGRADUATE SYMPOSIUM
ON RESEARCH AND
CREATIVE ACTIVITY 2023



THE UNIVERSITY OF
SOUTHERN MISSISSIPPI®

SCHEDULE OF EVENTS

Saturday, April 22, Scianna Hall and Trent Lott Center

7:30 a.m.	Registration Opens, Scianna Hall
8:30–9:45 a.m.	Concurrent Panels Session I, Scianna Hall
10–11:30 a.m.	Poster Presentations, Scianna Hall
11:45 a.m.–1:30 p.m.	Lunch and Keynote Address, Trent Lott Center Keynote Speaker: HUGH MOLOTSI Founder and CEO of Ujama, Inc.
1:45–3 p.m.	Concurrent Panels Session II, Scianna Hall
3:15–4:30 p.m.	Arts Showcase, Scianna Hall Auditorium
4:45 p.m.	Awards Ceremony, Scianna Hall Auditorium

ABOUT THE SYMPOSIUM AND ITS BENEFACTOR



The Symposium began as an annual event in the Department of History under the direction of Dr. Phyllis Jestice. In 2011, USM alumnus Donald Drapeau began sponsoring a series of awards for student presenters, and the next year, the Symposium was expanded to include students from across campus. The Undergraduate Symposium on Research and Creative Activity has grown since that time to an event that includes a keynote address, art, dance, music and theatre, as well as over 100 oral and poster presentations.

DONALD DRAPEAU, the Symposium's generous benefactor, completed his Bachelor of Science in history at Southern Miss before going on to earn a master's 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 employs financial engineers and maintains offices on multiple continents. In the 1970s, he founded Drapeau and Co. and became a member of the Chicago Mercantile Exchange.

A Fulbright 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 not only to his sponsorship of the prizes at the Symposium, but also to his support for the Donald Drapeau Summer Research and the Eagle SPUR Grants, which provide support for students' research and creative projects. In 2016, Mr. Drapeau announced a gift to Southern Miss that resulted in the renaming of the Center for Undergraduate Research to the Drapeau Center for Undergraduate Research. In 2019, he was inducted in the Southern Miss Alumni Hall of Fame.

The Symposium could not exist without Mr. Drapeau, whose vision for valuing expanded opportunities for undergraduates has driven this enterprise and has shaped Southern Miss and the lives of hundreds of its students. We thank him for his commitment and his generosity.

ABOUT OUR PLENARY SPEAKER



HUGH MOLOTSI was born and raised in Zambia and came to the United States for university. He graduated *summa cum laude* from The University of Southern Mississippi's Honors College with a Bachelor of Science degree in computer engineering technology. Hugh also holds a Master of Science degree in computer engineering from Santa Clara University.

Hugh is the founder and CEO of Ujama Inc., the makers of Soko, the Farmers Market App that makes it easy to discover farmers' markets near you and connect with their sellers. Hugh is a seasoned product and technology leader with over 30 years of experience developing global solutions for small businesses and consumers. Hugh is an accomplished innovator and has helped launch several disruptive

products. He has expertise in leadership development and digital transformation and has led diversity and inclusion initiatives. Hugh had a 22-year career at Intuit, where his last position was engineering fellow and vice president of innovation. During his Intuit tenure, Hugh helped develop QuickBooks and several other small business offerings. In 2011, Hugh became the first recipient of Intuit's Founders Innovation Award for his contributions helping launch Intuit's payments business. Hugh serves on the boards of Barloworld (BAW:SJ) and the Mozilla Corporation. Hugh is the co-author of *The Intrapreneur's Journey*, a book on how to develop a culture of innovation at large companies. He is passionate about fostering grassroots innovation and giving voice to good ideas wherever those ideas may come from.

Outside work, Hugh is committed to helping social entrepreneurs and underserved youth. Hugh serves on the board of Echoing Green, an organization that discovers and invests in emerging social entrepreneurs. He has served on the board of All Star Code, a prep program connecting young men of color to the tech industry, and is the past president of the Board of Directors of Fresh Lifelines for Youth, a nonprofit agency that runs programs for at-risk youth.

Hugh resides in Cupertino, California, with his wife, Michelle, and their two teenage daughters.

ABOUT OUR HOSTS



DRAPEAU CENTER FOR UNDERGRADUATE RESEARCH



The Drapeau Center for Undergraduate Research (DCUR) was established in October 2011, assuming the name of its benefactor, Donald Drapeau, in 2016. The 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.

DCUR works with undergraduate students to identify potential faculty mentors and sponsors competitive programs to assist students in their independent scholarship activities. These include the Eagle Scholars Program for Undergraduate Research (Eagle SPUR), which provides funds to support travel, to purchase equipment and supplies, and/or to be used as a stipend, and the Drapeau Summer Research Grants, which allow students to work full-time on their projects during the summer. You may learn more about these programs at usm.edu/undergraduate-research/drapeau-center.php.

THE UNIVERSITY OF SOUTHERN MISSISSIPPI *HONORS COLLEGE*



The first honors college in Mississippi and one of the oldest in the nation, the Southern Miss Honors College was founded in 1976 in an effort to offer enhanced educational experiences for high-achieving students. From its founding, the Honors College has required every student to undertake original research in the form of an Honors Thesis, making the College a fitting host for the Undergraduate Symposium.

Through a supportive and challenging intellectual community and by valuing engaged and active learning, the College encourages its students to seize opportunities and boldly determine their own paths—both at the university and beyond. Upon graduation, Honors Scholars have the independence and confidence to pursue their passions, the knowledge and tools with which to chart a fulfilling future course, and a lifelong commitment to using their capacities for the public good. For more information about the Honors College, visit usm.edu/hc or contact us at honors@usm.edu.

THANK YOU!

THE SYMPOSIUM TAKES A GREAT DEAL OF PLANNING AND SUPPORT, AND WE WANT TO THANK ALL OF THOSE WHO HAVE CONTRIBUTED TO THE EVENT!

THE 2023 SYMPOSIUM PLANNING COMMITTEE

This year's Symposium was organized and developed through the hard work of a university-wide committee, which met throughout the 2022-23 academic 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!

Dr. Joanne Cao, SCHOOL OF MARKETING

Dr. Allen Chen, SCHOOL OF PERFORMING AND VISUAL ARTS

Dr. Nicholas Ciraldo, SCHOOL OF MUSIC

Dr. Jeremy Deans, SCHOOL OF BIOLOGICAL, ENVIRONMENTAL AND EARTH SCIENCES

Dr. Sabine Heinhorst, HONORS COLLEGE

Ms. Jaide Hollingsworth, HONORS COLLEGE

Mr. Jared Hollingsworth, SCHOOL OF COMMUNICATION

Dr. Joyce Inman, HONORS COLLEGE

Ms. Brianna Jahn, SCHOOL OF PERFORMING AND VISUAL ARTS

Ms. Jo Ann Johnson, DRAPEAU CENTER FOR UNDERGRADUATE RESEARCH/OFFICE OF THE VICE PRESIDENT FOR RESEARCH

Dr. Elena Stepanova, SCHOOL OF PSYCHOLOGY

Dr. Alexandra Valint, SCHOOL OF HUMANITIES

Ms. Cyndi Wyles, OFFICE OF THE VICE PRESIDENT FOR RESEARCH

FACULTY JUDGES

We are grateful to the following Southern Miss faculty members for volunteering their time and energy to the UGS.

Banu Bas, Marketing

Kaitlin Baudier,
Biological Sciences

Katja Biswas, Physics

Kelsey Bonfils, Psychology

Heather Broadhead,
Polymer Science

Quincy Brown, Human
Capital Development

Samantha Bull, USM Libraries

Joanne Cao, Marketing

Matthew Casey, History

Hwanseok Choi, Public Health

Nicholas Ciraldo, Music

Laura Clark Hunt, Library
and Information Science

Ali Dogru, Management

Ian Dunkle, Philosophy

Jacob Esplin, Child and
Family Science

Jim Evans, Marketing

Christopher Flood,
Biological Sciences

Mohsen Foroughi Sabzevar,
Construction and Design

Jamye Foster, Marketing

Daniel Garcia, Electrical
Engineering

Gabe Goldstein,
Construction and Design

Qingguang Guan, Mathematics

Yanlin Guo, Biological Sciences

Bridget Hayden, Anthropology

Sabine Heinhorst, Biochemistry

Caitlyn Herzlinger, Theatre

Mark Huff, Psychology

Luis Iglesias, English

Iliyan Iliev, Political Science

Joyce Inman, English

Brianna Jahn, Dance

Joann Judge, Kinesiology

Christy Kayser,
Interdisciplinary Studies

Hyunmin Kim, Public Health

Theofanis Kitsopoulos,
Chemistry

John Kmiec, Human
Capital Development

Melissa Kossman,
Rehabilitation Sciences

Kevin Kuehn, Biological Sciences

Kelly Ferris Lester, Dance

Boran Ma, Polymer Science

Sarah Mangrum, Library
and Information Science

Ashley Marshall, Library
and Information Science

Tina Masterson, Chemistry

Michelle McLeese, Sociology

Marcus Michels, Visual Arts

Derek Patton, Polymer Science

Daleana Phillips, Communication

Nicole Phillips,
Biological Sciences

Julie Pigza, Chemistry

Scott Piland, Kinesiology

Megan Renna, Psychology

Maureen Ryan, English

Bernd Schroeder, Mathematics

Jeremy Scott, Physics

Diana Simpson, USM Libraries

Jon Stavres, Kinesiology

Elena Stepanova, Psychology

Alexis Stoner, Marketing

Kenneth Swope, History

Haiyan Tian, Mathematics

Rebecca Tuuri, History

Kelly Vera, Biological Sciences

Wei Wang, Marketing

Shane Wood, English

Zhifu Xie, Mathematics

Gallayanee Yaoyuneyong,
Marketing

Sharon Young, Sociology

Fan Zhang, Construction
and Design

Zhaoxian Zhou,
Computer Science

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OUR CAMPUS SPONSORS

We would like to extend a special thank you to the College of Business and Economic Development for opening the doors of Scianna Hall to the Symposium, and to these sponsors for their generous support.

Vice President for Research	College of Nursing and Health Professions
Vice President for Student Affairs	The Graduate School
College of Arts and Sciences	University Libraries
College of Business and Economic Development	Southern Miss Alumni Association
College of Education and Human Sciences	Southern Miss Athletics

We'd like to extend a special thank you to these donors for their kind support of our student scholars.



Best Presentation on a Biomedical Topic
Provided easels and boards
for poster presenters



Best Community-Engaged
Research or Creative Activity



The Jack Lucas Award



Arts Showcase Awards

THE SOUTHERN MISS WOMEN'S AND GENDER STUDIES PROGRAM

The Women's and Gender Studies Prize

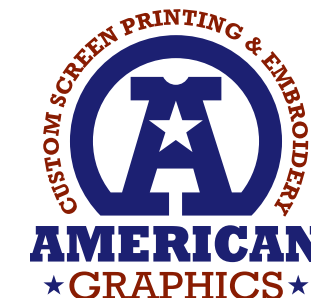
OUR COMMUNITY SPONSORS

Please help us thank our local sponsors by letting them know that Hattiesburg appreciates their support of student achievement at Southern Miss!



SPECIAL THANKS

to American Graphics for their especially generous support!



SCHEDULE OF SESSIONS

SATURDAY, APRIL 22

8:30-9:45 A.M. CONCURRENT PANELS SESSION I

SCI 1008 INTERPRETING ART: WOMEN, WITCHES AND WAR A

MODERATOR: LAUREN RAY, HONORS COLLEGE

Maidens and Crones: Early Modern Origins of Modern Witches
JESSIE MILLETTE, ART

Rabbits, Women and the Power of Marginalia in the *Pontifical of Renaud de Bar*
RACHELLE SPEIGHTS, ART

The Politics of Géricault's *Raft of the Medusa*
ZY RODGERS, ART

Insanity or Guilt? Discussing Francisco Goya's *Disasters of War* and *Black Paintings* Series
VICTORIA PARDEW, ART

SCI 1014 RACISM IN AMERICA: FROM THE 19TH CENTURY TO THE PRESENT DAY B

MODERATOR: KYLE ETHRIDGE, HONORS COLLEGE

The Tulsa Race Massacre of 1921
MASON BENNETT, HISTORY

Weaponized Victimhood: The Propaganda of the Mississippi State Sovereignty Commission
SIMEON GATES, HISTORY

Black Response to White Racial Violence in Central Kentucky, 1865-77
MICAH LYNN, HISTORY

SCI 1015 DISABILITY STUDIES: SCHOOLS, COLLEGES AND CAREERS C

MODERATOR: SABA SHAHID, PSYCHOLOGY

Fighting the Stigma: Consumers' Perceptions of Frontline Employees with Disabilities
LONDON MCFARLAND, MARKETING, APPLIED ECONOMICS

School to Prison Pipeline: Biases and Contributions of Educators and Law Enforcement Officers Regarding Individuals with Communication Disorders
JANIE CROMER, SPEECH PATHOLOGY AND AUDIOLOGY

Evaluating the Effectiveness of Tier II in Mississippi Elementary Schools
MADISYN KILLOUGH, ELEMENTARY EDUCATION

Investigating the Effects of Heightened Creativity on Social Acceptance of Individuals Who Have Schizophrenia
AIS'JAH HICKS, PSYCHOLOGY

SCI 1040 CHEMICAL ANALYSIS, SYNTHESIS AND DEVICE DESIGN D

MODERATOR: SAYSHA SEBREN, BIOLOGICAL SCIENCES

Dissolved Copper Distributions in the Western Mississippi Sound: Characterizing an Unrecognized Source
MEGAN HANSEN, CHEMISTRY (ACS CERTIFIED CHEMISTRY)

Investigation of Nitrogen Heterocycle Synthesis via N-Sulfonyliminium Ion Triggered aza-Prins Cyclizations
DAMIEN COOPER, CHEMISTRY (ACS CERTIFIED CHEMISTRY)

Optimizing and Evaluating FDM Printing for Underwater Applications
GLENN ANGLADA, OCEAN ENGINEERING

Development of an Organocatalyzed Nucleophilic Addition of Masked Acyl Cyanides to Azomethine Imines
ALEX HELBLING, CHEMISTRY (BIOCHEMISTRY)

SCI 1043 CYBERSECURITY E

MODERATOR: LOREN STEARMAN, BIOLOGICAL SCIENCES

Web Development for Online Security
WYATT SWANSTROM, COMPUTER SCIENCE
MARQUEZ HUNDLEY, COMPUTER SCIENCE

Viability of Machine Learning in Android Scareware Detection
AAYUSH GAUTAM, COMPUTER SCIENCE

Lack of Cyber Law Modernization and the Effects on the Everyday Internet User
LYRIQUE MCNAIR, COMPUTER SCIENCE
ALAN LIPSKI, CYBERSECURITY

SCI 1046 PROTEINS AND CELLS F

MODERATOR: CHARLES BOND, BIOLOGICAL SCIENCES

Dynamics of A β Aggregation in Alzheimer's Disease
BREA FORD, CHEMISTRY (BIOCHEMISTRY)

Morphological and Functional Classification of the *Amblyomma americanum* Immune Cells
JULIA HANSON, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES)

Mass Spectrometry Based Analysis and Proteolytic Digestion of HIV-1 Integrase
THANIA GONZALES, CHEMISTRY (BIOCHEMISTRY)

Bioinformatic Analysis of Antimicrobial Innate Immunity in Mouse Stem Cells
YESEUL BAE, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES)

SCI 1048 IMPORTANT CONVERSATIONS: RACISM, ANTI-SEMITISM AND VIOLENCE G

MODERATOR: DAMILOLA OYEBODE, BIOLOGICAL SCIENCES

Segregationist Education and Lasting Labor Force Effects
BREANNA MASTERSON, APPLIED ECONOMICS, MATHEMATICS

The Specter of Violence in Global Society - The Hidden Objective Violence in the World Order and Its Economic Incentives
JUDE SIMS-BARBER, PHILOSOPHY, SOCIOLOGY

A Thematic Analysis of the Experience of Black Mothers Impacted by Police Violence
KLARIA HOLMES, PSYCHOLOGY

Jesus, Anti-Semitism and the Church
KATHRYN SCHARWATH, HISTORY, PEARL RIVER COMMUNITY COLLEGE

SCI 2004	PLACE MATTERS: EXPLORING HOME, TOURISM AND RISKS	H
MODERATOR: JESSICA JAMES-PRINCE, HONORS COLLEGE		
Residential Reconstruction for Preservation: An Interdisciplinary Study JENNIFER DOMINGOS, INTERDISCIPLINARY STUDIES		
Effects of Uncertainty Avoidance on Film-Motivated Tourists' Perceptions of Destination Image, Place Attachment and Travel Intentions PATRICK TYSON, ANTHROPOLOGY, SOCIOLOGY, SPANISH		
FEMA Flood Risk Evaluations and Educational Outcomes: The Case of New Orleans CHRISTIAN HASENKAMPF, APPLIED ECONOMICS		
Perceived Value and Satisfaction in a Coastal Tourist Environment KA'LON DUNCANSON, MARKETING		

SCI 2005	ANIMAL BEHAVIOR AND PERFORMANCE	I
MODERATOR: KRISTIN ROBINSON, BIOLOGICAL SCIENCES		
Testing the Preference-Performance Hypothesis for <i>Culex secutor</i> Within Spathe Habitats in Puerto Rico LIZ WYNNE, BIOLOGICAL SCIENCES		
Flight Willingness Behavior Within the Soldier Caste of <i>Tetragonisca angustula</i> JOSEPH SERIO, BIOLOGICAL SCIENCES		

SCI 2009	UNDERSTANDING CONSUMERS: FASHION, FOOTBALL AND PHILANTHROPY	J
MODERATOR: VIVIAN O'NEAL, HONORS COLLEGE		
What Are Consumer Attitudes Toward Model Body Types in Fast-Fashion and Slow-Fashion Companies in Advertising, and What Can We Learn from These Responses? KELCIE BOLDEN, PUBLIC RELATIONS AND ADVERTISING		
Religiosity and Hyperfemininity in Advertising – How the Patriarchy Impacts “Pink” Ads MALLORY EXTINE, PUBLIC RELATIONS AND ADVERTISING		
The Grand College Football Team Entrance: Comparing Spectators’ and Football Athletes’ Engagement and Satisfaction ELIZABETH JONES, MANAGEMENT (HUMAN RESOURCES MANAGEMENT)		
But This Rewards Me! An Examination of Consumer Status and Social Dominance Orientation in the Donation of Reward Points CLANCY SLAY, HEALTHCARE MARKETING		

10-11:30 A.M. POSTER PRESENTATIONS

ASSISTANTS:
 LAUREN RAY, HONORS COLLEGE
 JESSICA JAMES-PRINCE, HONORS COLLEGE

SCI FIRST FLOOR, NORTH HALLWAY		
1.	Direct Synthesis of Ordered Mesoporous Materials from Thermoplastic Elastomers ANDREW BARBOUR III, POLYMER SCIENCE AND ENGINEERING	
2.	Factors and Differences Between Male and Female Homicide Offenders: Psychologically and Through Crime Cases MAKAILA BELK, PSYCHOLOGY	
3.	Exploring the Adaptive Function of Overwintering Behavior in the Paper Wasp <i>Mischocyttarus mexicanus</i> TAYLOR GUILD, MARINE BIOLOGY	
4.	Examining the Associations Between Psychological Flexibility and Lifestyle Behaviors CAMERON BROADWAY, PSYCHOLOGY JOSHUA BATIA, PSYCHOLOGY SYDNEY LORD, PSYCHOLOGY	
5.	Exploring Adversarial Attacks and Defenses for Machine Learning Models in Dark Web Traffic Classification HEATHER BROOME, COMPUTER SCIENCE YAJU SHRESTHA, COMPUTER SCIENCE	
6.	Analysis of Public Library Services to the Military Community RACHEL BROWN, LIBRARY AND INFORMATION SCIENCE	

7.	Sing It High or Sing It Low: Singing Does Not Improve Memory More Than Reading Aloud AIDAN BROWN, PSYCHOLOGY	
8.	Formulation and Process Optimization of Bio-Based Recycled Polymer for Commodity Applications IAN BULLMAN, POLYMER SCIENCE AND ENGINEERING	
9.	Challenging Checkout Charities: Exploring Generational Differences SHAYLEE FERGUSON, INTERNATIONAL BUSINESS	
10.	Using Directed Forgetting to “Forget” Associative False Memories JOLEY CAMERON, PSYCHOLOGY EMILEE WESTFALL, PSYCHOLOGY	
11.	Identification of Novel Cytotoxic Genes in Cluster P3 Mycobacteriophage Xavia LAURA BANKSTON, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES) LYNE LE, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES) JAYLEN PADGETT, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES) HAYLEY CRADDIETH, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES) JANNINAH MILLER, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES) KATELYN CARTWRIGHT, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES) DESTINI BAILEY, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES) TY COTHERN, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES) SEAN HARTENSTEIN, BIOLOGICAL SCIENCES (MICROBIOLOGY)	

SCI SECOND FLOOR, NORTH HALLWAY		
12.	Examination of Algal Priming Effects on Fungal Community Structure Associated with Decaying Wood JORDAN COLE, FORENSICS (BIOLOGICAL SCIENCES)	
13.	Vienna Summer Music Festival FRANCO GALETTO, MUSIC (PERFORMANCE-STRINGS), MEDIA AND ENTERTAINMENT ARTS (SOUND AND RECORDING ARTS)	
14.	Bedtime Routines Play a Crucial Role in Sleep Quality and Depression Amongst Parents WILLIAM CLARK, PSYCHOLOGY	
15.	Characterization of Phenazine Regulatory Genes in <i>Burkholderia lata</i> 383 ASHLEY GRANTHAM, BIOLOGICAL SCIENCES (MICROBIOLOGY)	
16.	Exploring the Relationship Between Education Level and Perceived Physical and Mental Health of Adult Mississippians ZADA DAVIS, PSYCHOLOGY	
17.	Assessing Athletes' Risk for Developing the Female Athlete Triad at Two Mississippi Universities LAURA GRACE WARREN, NUTRITION AND DIETETICS (DIDACTIC PROGRAM IN DIETETICS)	
18.	An Exploration of the Impact of Body Mass on Skeletal Measurements of Long Bone Joints CAROLINE GENIUS, FORENSICS (BIOLOGICAL SCIENCES)	
19.	Notes on the Natural History and Climatic Specializations of a Caribbean Endemic Paper Wasp ALYCIA JOHNSON, BIOLOGICAL SCIENCES (CONSERVATION BIOLOGY)	
20.	Examining Post-Traumatic Stress Symptom Clusters and Dissociation in a Sample of Trauma-Exposed College Students ANDREA COLLIER-BAGBY, PSYCHOLOGY	
21.	Extending the Three-Dimensional Culture of Adipocytes Through Surface Coatings ZACCHAEUS WALLACE, POLYMER SCIENCE AND ENGINEERING	
22.	Functional Characterization of Hypothetical Genes from Cluster P Mycobacteriophage Xavia ASHLEY FRYE, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES) MADISON MOAK, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES) SARAH MITCHELL, BIOLOGICAL SCIENCES (MICROBIOLOGY) LUCKETT NIXON, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES) PEARL CAO, BIOLOGICAL SCIENCES MAYCE CAUSEY, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES) DIAMOND JOHNSON, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES) CHELSEA JONES, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES)	

SCI SECOND FLOOR, CENTRAL HALLWAY		
23.	Dietary and Physical Activity Determinants of Metabolic Syndrome and Metabolic Syndrome Severity: A Cross-Sectional Analysis LANE WISE, KINESIOLOGY (EXERCISE SCIENCE)	
24.	Solar-Powered Charging Station ALEX NGUYEN, POLYMER SCIENCE AND ENGINEERING	
25.	Protective Behavioral Strategies Related to Reduced Pregaming in College Students SOPHIE DENTON, PSYCHOLOGY	
26.	Assessing the Current Status of Seagrass in Grand Bay CHARLSIE WILSON, MARINE BIOLOGY	

27. Trends of Ovarian Cancer Incidence and Mortality in Mississippi Between 2003 and 2020
ANGEL WALKER, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES)
28. Overexpression of Genes Encoded by Mycobacteriophage Xavia to Identify Novel Inhibitors of Bacterial Growth
ASHLEY MCPHERSON, CHEMISTRY (BIOCHEMISTRY)
ZARIA JOSEPH, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES)
RAUL LEON-CUEVAS, BIOLOGICAL SCIENCES (MICROBIOLOGY)
MEAGAN WYNNE, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES)
TYLER TRACEY, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES)
CORLISE SPENCER, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES)
BLAKE PIGAGE, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES)
DAMIRA MCGRUDER, BIOLOGICAL SCIENCES
29. Examining Financial Knowledge Levels of Students of Color Versus White Students
ANECIA FLEWELLEN, PSYCHOLOGY
30. Substrate Habitat Preference in Genetically Similar *Fundulus olivaceus* Populations
SEAN WEAVER, MARINE BIOLOGY
31. The Effect of Yoga on Stress for Honors College Students
ELIZABETH KALINOWSKY, SPEECH PATHOLOGY AND AUDIOLOGY
32. Mobile Friction Testing Device for AM-2 Matting Systems
BAYLEIGH GRAVES, POLYMER SCIENCE AND ENGINEERING
33. What's DEI? A Review of DEI Programs in Higher Education
DREW LE, PSYCHOLOGY, SOCIOLOGY
34. Spatial Patterns in Dormant Seagrass Seed Densities in Pensacola and Perdido Bays, Florida: Insight into Seagrass Reproductive Output to Inform Natural Resource Management Decisions
DEVAN HILDEBRAND, MARINE BIOLOGY
35. Behind the Walls
DESIRAE OLIVER, ART (SCULPTURE)
36. An Examination of the Relationship Between Perceptions on Voter Suppression and Stereotypical Racial Beliefs
VERONICA SIGCHO, POLITICAL SCIENCE, CRIMINAL JUSTICE

SCI SECOND FLOOR, SOUTH HALLWAY

37. Squaramide Organocatalyzed Diastereoselective Addition of a Masked Acyl Cyanide to a beta-Nitrostyrene
AIDEN LEISE, CHEMISTRY (ACS CERTIFIED CHEMISTRY)
38. The Effects of Social Media on College Students: A Study on Perceived Happiness
SARAH SWAN, NURSING
39. Thermal Tolerance in Correlation with Body Size in the Tropical Fire Ant *Solenopsis geminata*
CAROLINE MARLEY, BIOLOGICAL SCIENCES
40. Multi-Modal Intensive Longitudinal Methods in the Southern United States: Preliminary Evidence of Feasibility and Acceptability in Participants with Schizophrenia-Spectrum Disorders
BRADEN WAUGH, PSYCHOLOGY
41. Oral Glucose Tolerance is Significantly Correlated to the Sensitivity of Blood Pressure Responses to Muscular Contractions but Not Cold Pressor Activation
DIAVION STANFIELD, KINESIOLOGY (EXERCISE SCIENCE)
42. Rethinking Work Values Results in College Students' Mental Health
SUNNY JO YOUNG, PSYCHOLOGY
43. Development of a Novel Environmental DNA (eDNA) Tool for Monitoring Vulnerable Freckled Guitartfish *Pseudobatos lentiginosus* in the Western Central Atlantic
SARAH TOEPFER, MARINE BIOLOGY
44. Influence of Metabolic Syndrome on Resting Cardiac Autonomic Tone: Evidence from Heart Rate Variability and Baroreflex Sensitivity
ANABELLE VALLECILLO BUSTOS, KINESIOLOGY (EXERCISE SCIENCE)
45. Development of a Continuous Cell Line from the Tick *Amblyomma maculatum* as a Tool for Tick and Tick-Borne Disease Research
SABRINA WALIA, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES)
46. Designing a Perfusion-Compression Bioreactor for Culture of Bone Explants
HONOR ELCHOS, BIOMEDICAL ENGINEERING, PEARL RIVER COMMUNITY COLLEGE
47. Associations Between Metabolic Syndrome Severity and Abdominal Adiposity Measures Produced by Near-Infrared Reactance Spectroscopy: A Cross-Sectional Analysis and the Development of New Prediction Equations
ALEX HENDERSON, KINESIOLOGY (EXERCISE SCIENCE)

1:45-3 P.M. CONCURRENT PANELS SESSION II

SCI 1008	PEDAGOGY AND EXPRESSION: EXPLORING DANCE, WRITING AND LANGUAGE LEARNING	K
MODERATOR: VIVIAN O'NEAL, HONORS COLLEGE		
Learn to Move: A Creative Movement Project GABBY BASS, DANCE (DANCE EDUCATION)		
Getting Creative: Examining Independent Student Writers' Perception of the Writing Center EDEN DULEY, ENGLISH		
Language Experience: The Perception of Foreign Language Acquisition Among University Adults LILETH STRICKLIN, WORLD LANGUAGES (SPANISH), POLITICAL SCIENCE		
SCI 1014	HUMAN WELL-BEING	L
MODERATOR: KRISTIN ROBINSON, BIOLOGICAL SCIENCES		
Interactions and Support Networks of the Severely Mentally Ill MAX MENARD, SOCIOLOGY		
Exercise and Mental Health Within a National Population AUSTIN BOURNE, PSYCHOLOGY		
The Effects of Social Media on Mental Health and Career Planning SPENCER ROWAN, INFORMATION TECHNOLOGY		
SCI 1015	BEARING WITNESS: UNDERSTANDING THE IMPACTS OF COLONIZATION AND POLITICAL VIOLENCE	M
MODERATOR: EMILY GOLDSMITH, ENGLISH		
Chilocco Indian School: The Impacts of Student Experiences on Native Communities, 1884-1929 OLIVER GORDON, HISTORY, SOCIOLOGY		
Cultural Folk, Political Lore: The Politics of Folklore During the United States' Occupation of Haiti from 1915 to 1934 CHEYLA MUÑOZ RAMOS, INTERNATIONAL STUDIES, WORLD LANGUAGES (FRENCH)		
"Quarterbacking" Chaos: An Analysis of America's Role in the August Coup of 1991 in the Democratically Transitioning Soviet Union CAMERON MELÉNDEZ, HISTORY, POLITICAL SCIENCE		
SCI 1040	ANALYSIS AND REPRESENTATION OF HUMAN BEHAVIOR	N
MODERATOR: SHIZA SHAHID, PSYCHOLOGY		
The Impact of Web Design on Advertising and Consumerism ERIN YOW, COMPUTER SCIENCE		
Relationship Between Psychology and Computer Science ETHAN CHIEMPRABHA, COMPUTER SCIENCE (APPLIED COMPUTER SCIENCE)		
Hollywood Versus History: Competing Representations of World War II ANDREW PURVIS, HISTORY, PEARL RIVER COMMUNITY COLLEGE		
SCI 2004	BEHIND THE SCENES: ART IN DIFFERENT MEDIUMS	O
MODERATOR: CHEYENNE BRADY, LIBRARY AND INFORMATION SCIENCE		
The Beast Lives Here KELLI KIRKLAND, ENGLISH, LEGAL STUDIES (PRE-LAW)		
Coffee Culture MALLORY JOHNSON, MEDIA AND ENTERTAINMENT ARTS (VIDEO ARTS) EMMA HOLSTON, MEDIA AND ENTERTAINMENT ARTS (VIDEO ARTS) OLIVIA UCHELLO, MEDIA AND ENTERTAINMENT ARTS (VIDEO ARTS, MANAGEMENT)		
Fringes DANTAYE WALKER, MEDIA AND ENTERTAINMENT ARTS (SOUND AND RECORDING ARTS)		

SCI 2005

CHALLENGING PERCEPTIONS: ART AND POPULAR CULTURE

P

MODERATOR: TAWANDA NYAHASHA, ENGLISH

A Light Peace Within the Void: Robert Rauschenberg and the *Erased de Kooning*
MILES ALSTON, ART

1940s American Women's Fashion: How War Changed Civilian Clothing
EMMA RAWLS, HISTORY, ENGLISH

If a Picture Can Say 1,000 Words, What About 1,000 Pictures?: Investigating the Communicativeness of Salvador Dalí's Traditional Art and Film
ASHLEY VANDERKOOY, ART, MEDIA AND ENTERTAINMENT ARTS (FILM)

Supernatural and Its Fans
MYAH KELLY, PSYCHOLOGY

SCI 2007

COMPUTATIONAL APPROACHES IN BIOLOGY

Q

MODERATOR: KAREN ROBLES LOPEZ, BIOLOGICAL SCIENCES

Modeling the Open Probability of Ion Channels on Cell/Organelle's Membranes by Deep Neural Network
ABEL GURUNG, MATHEMATICS, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCES)

Utilizing Sequence-to-Sequence Long-Short Term Recursive and Convolutional Neural Networks to Predict RNA Interference in FASTA Gene Sequence Data
TOBY DAVIS, COMPUTER SCIENCE

Using SIRF Model to Simulate the Competition Among Multiple Strains of COVID-19 in U.S. and Canada
MORGAN WILSON, MATHEMATICS (LICENSURE)

SCI 2008

FOSSILS AND DECAYING TISSUE

R

MODERATOR: CHARLES BOND, BIOLOGICAL SCIENCES

Canine Scent Discrimination of Human Remains
ALEX PESCADOR, FORENSICS (ANTHROPOLOGY)

Fossil Identification Process of the Cusseta Sand
OLIVIA WOOTON, GEOLOGY, ART

Adipocere Formation Patterns in Clay and Sand as Observed on Submerged *Felis catus* Specimen
ISABELLA RAGAZZI, ANTHROPOLOGY, FORENSICS (BIOLOGICAL SCIENCES)

SCI 2009

STUDYING IMPLICATIONS: STUDENTS, CONSUMERS AND CITIZENS

S

MODERATOR: KYLE ETHRIDGE, HONORS COLLEGE

The Impact of Unrestricted Concealed Carry Weapon Laws on Crime
ALI MELAD, APPLIED ECONOMICS

Traditional or Active Learning: The Impact of Classroom Environment on Student Mental Well-Being and Performance Expectations
ROBBIE MCDONALD, INTERIOR DESIGN

Tip Requests from Various Service Agents and Their Effect on Restaurant Consumers' Perception and Reactions
HAEDEN OVERBY, HOSPITALITY AND TOURISM MANAGEMENT

The Drawing Effect: Evidence for Costs and Benefits Using Pure and Mixed Lists
PEYTON POE, PSYCHOLOGY

3:15-4:30 P.M. CREATIVE AND PERFORMING ARTS SHOWCASE

SCIANNA HALL AUDITORIUM

Join us for a celebration of creative activity by undergraduates at Southern Miss.

Q&A and Recognition of Visual Artists

Delicate but Deadly
BY MADALIN COSTELLA,
ART (SCULPTURE)

Death Do Us Part
BY KAYLA BEELES,
ART (SCULPTURE)

Sunken Memories
BY REAGAN SKINNER,
ART (SCULPTURE)

On Display
CHOREOGRAPHY AND VISUAL ART BY MEAGAN COBB, DANCE (PERFORMANCE AND CHOREOGRAPHY)
PERFORMED BY USM DANCE MAJORS CAITLYN DIAMOND, SARA GRACE DUPLESSIS, MEAGAN OBIOL, EMALEIGH OUSTERHOUT
MUSIC: "SOON-TO-BE INNOCENT FUN" BY ARTHUR RUSSELL AND "EPIC DREAM" BY VEGA TRAILS

Digital Nest Media Showcase: Franco Galetto
DIRECTED BY ROBERT LOCK, MEDIA AND ENTERTAINMENT ARTS (VIDEO ARTS)
MUSIC: "CELLO SONATA IN G MINOR, III MOVEMENT" COMPOSED BY SERGEI RACHMANINOFF
CELLIST: FRANCO GALETTO
PIANIST: ALISON POST

Euphoric Dysphoria
CHOREOGRAPHY AND POETRY BY NATALIE SUNSERI, DANCE (PERFORMANCE AND CHOREOGRAPHY)
PERFORMED BY USM DANCE MAJORS MEAGAN COBB, CAITLYN DIAMOND, SARA GRACE DUPLESSIS, SEANA RAINS
MUSIC: "MAGIC MAN" BY HEART AND "DOVE" BY CYMANDE
FEATURED POETRY: "UNEVEN ENVY"

Friend Who Lies
CHOREOGRAPHY AND PERFORMANCE BY AKI MOON, DANCE (PERFORMANCE AND CHOREOGRAPHY)
WRITTEN WORK: "A FRIEND WHO LIES" BY GAVEN WALLACE
MUSIC: "HAPPINESS WAITS FOR NO ONE" BY OLAFUR ARNALDS

Nameless
VIDEO PRODUCED BY MEDIA AND ENTERTAINMENT ARTS (VIDEO ARTS) MAJORS MALLORY JOHNSON, HANNAH GUTHRIE AND EMMA HOLSTON
PERFORMANCE BY BEARDED CHIEFTAINS

"Lucky Pick" (excerpt)
WRITTEN AND READ BY WILLIAM CAMPBELL, ENGLISH

J.S. Bach Suite No.5 for Cello Solo, Prelude
PERFORMED BY FRANCO GALETTO, MUSIC (PERFORMANCE-STRINGS)

4:45 P.M. AWARDS CEREMONY

SCIANNA HALL AUDITORIUM

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 presentations of the Symposium.



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2023

Hosted by the
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at The University of Southern Mississippi