UNDERGRADUATE SYMPOSIUM ON RESEARCH AND CREATIVE ACTIVITY 2018
### SCHEDULE OF EVENTS

**Saturday, April 21, Scianna Hall**

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<th>Time</th>
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<td>7:30 a.m.</td>
<td>Registration</td>
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<td>8:30–9:30 a.m.</td>
<td>Concurrent Panels Session I</td>
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<td>9:45–11:15 a.m.</td>
<td>Poster Presentations</td>
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<td>11:30 a.m.–1 p.m.</td>
<td>Lunch and Keynote Address, Trent Lott Center</td>
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<td>11:30 a.m.–1 p.m.</td>
<td>Keynote Speaker: M. KATHARINE HOLLOWAY, PHD</td>
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<td>11:30 a.m.–1 p.m.</td>
<td>Principal Scientist, GFree Bio, LLC</td>
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<td>1–2:15 p.m.</td>
<td>Concurrent Panels Session II</td>
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<td>2:30–3:30 p.m.</td>
<td>Concurrent Panels Session III</td>
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<td>3:45–4:45 p.m.</td>
<td>Arts Showcase (Scianna Hall Auditorium)</td>
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<td>5 p.m.</td>
<td>Awards Ceremony (Scianna Hall Auditorium)</td>
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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 since grown to an event that includes a keynote address, art, dance, music and theatre, as well as oral and poster presentations. In 2017, approximately 300 people attended the Symposium, with more than 130 students presenting and performing.

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 not only led to his sponsorship of the prizes at the Symposium, but also to the creation of the Donald Drapeau Summer Research Grants, which enable students to devote full time to their research, and to the Eagle Wings program, which provides support for students to present their scholarly findings at professional conferences. In 2016, Mr. Drapeau announced a gift to Southern Miss that resulted in the renaming of the Center for Undergraduate Research as the Drapeau Center for Undergraduate Research.

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.
DR. M. KATHARINE HOLLOWAY is principal scientist at GFree Bio, LLC. During a highly successful 30-year career at Merck, Dr. Holloway provided structure-based design guidance for a wide range of therapeutic targets, particularly in the areas of infectious diseases and neuroscience. She is perhaps best known for the design of protease inhibitors for the treatment of HIV/AIDS (Crixivan™, approved 1996) and Hepatitis C infection (Vanihep™, approved 2014; Zepatier™, approved 2016). She has been honored with several awards as a co-inventor of Crixivan™ including the Intellectual Property Owners National Inventor of the Year Award in 1997, the American Chemical Society Award for Creative Invention in 1999, and the EU Inventor of the Year Award (non-EU country) in 2007. In 2017, she received the American Chemical Society Heroes of Chemistry award, recognizing the Merck team who invented Zepatier™, a significant new treatment for chronic Hepatitis C virus infection. She was also profiled in the 2002 book, *Patently Female: From AZT to TV Dinners, Stories of Women Inventors and Their Breakthrough Ideas* by Ethlie Ann Vare and Greg Ptacek and was featured in the 2004 Chemical Heritage Foundation exhibit and website, titled “Her Lab in Your Life: Women in Chemistry.”

Dr. Holloway received a BS in chemistry and French (*summa cum laude*) from The University of Southern Mississippi. She performed the research for her Honors Thesis under the direction of organic chemist, Dr. Anselm C. Griffin, and was active in the Honors College, Phi Kappa Phi, Omicron Delta Kappa, Pi Delta Phi, Phi Eta Sigma, and the Del Sur service organization. Following her graduation, she received a PhD in theoretical organic chemistry from The University of Texas at Austin. She is a co-author or co-inventor of approximately 100 publications and issued patents. She is a former chair of the Computer-Aided Drug Design Gordon Research Conference and the Computers in Chemistry division of the American Chemical Society. She was selected as an American Chemical Society Fellow in 2013, reflecting both scientific excellence, as well as long-standing leadership within the organization. She currently serves as a regular member of the AIDS Discovery and Development of Therapeutics (ADDT) NIH study section.
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 undergraduates to identify potential faculty mentors and also sponsors a number of competitive programs to assist students in their independent scholarship activities. They include the Eagle Scholars Program for Undergraduate Research (Eagle SPUR), which provides up to $1,000 to support travel, to purchase equipment and supplies, and/or to be used as a stipend; Eagle Wings, which funds external conference travel; and the Drapeau Summer Research Grants, which allow students to work full-time during the summer on their research projects. It also coordinates production of The Catalyst, USM’s undergraduate journal. You may learn more about these programs at usm.edu/research/cur.
The oldest 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/honors or contact us at honors@usm.edu.
THANK YOU!

THE 2018 SYMPOSIUM PLANNING COMMITTEE

This year’s Symposium was organized and developed through the hard work of a university-wide committee, which met throughout the 2017-18 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!

Ms. Elena Azadbakht, UNIVERSITY LIBRARIES
Dr. Joanne Cao, MARKETING AND MERCHANDISING
Dr. Matthew Casey, HISTORY
Mr. Allen Chen, ART AND DESIGN
Dr. Marie Danforth, ANTHROPOLOGY AND SOCIOLOGY / DRAPEAU CENTER FOR UNDERGRADUATE RESEARCH
Dr. Jamye Foster, MARKETING AND MERCHANDISING
Ms. Jessica Francis, HONORS COLLEGE
Dr. Sabine Heinhorst, CHEMISTRY AND BIOCHEMISTRY / HONORS COLLEGE
Ms. Jo Ann Johnson, DRAPEAU CENTER FOR UNDERGRADUATE RESEARCH / OFFICE OF THE VICE PRESIDENT FOR RESEARCH
Dr. Jennifer Lemacks, NUTRITION AND FOOD SYSTEMS
Ms. Elizabeth Lentz-Hill, DANCE
Dr. Lachel Story, NURSING
Dr. Ellen Weinauer, ENGLISH / HONORS COLLEGE
Ms. Cyndi Wyles, OFFICE OF THE VICE PRESIDENT FOR RESEARCH
The Symposium takes a great deal of planning and support, and we want to thank all of those who have contributed to the event!

FACULTY JUDGES

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

Laura Alberti, Communication Studies
Mohamed Alburaki, Biological Sciences
Elena Azadbakht, University Libraries
Jonathan Barron, English
Ashley Batastini, Psychology
Amitava Biswas, Speech and Hearing Sciences
Heather Broadhead, Polymer Science and Engineering
Quincy Brown, Human Capital Development
Joanne Cao, Marketing and Merchandising
Gordon Cannon, Chemistry and Biochemistry
Craig Carey, English
Matthew Casey, History
Nora Charles, Psychology
Allen Chen, Art and Design
Juwon Choi, Economic Development, Tourism and Sport Management
Karen Coats, Graduate School
Kate Cochran, English
Marie Danforth, Anthropology and Sociology
Daniel Garcia, Computer Science
Laura Gulledge, Criminal Justice
Song Guo, Chemistry and Biochemistry
Andrew Haley, History
Halvor Halvorson, Biological Sciences
Joshua Haynes, History
Sabine Heinhorst, Chemistry and Biochemistry
Mark Huff, Psychology
Holly Huye, Nutrition and Food Systems
Brianna Jahn-Malinowski, Dance
Nicolle Jordan, English
Joann Judge, Kinesiology
Shahid Karim, Biological Sciences
Lucas Keefer, Psychology
Jacques Kessl, Chemistry and Biochemistry
Sherry Kinkopf, English
Ann Marie Kinnell, Anthropology and Sociology
Kevin Kuehn, Biological Sciences
Brian LaPierre, History
Jennifer Lemacks, Nutrition and Food Systems
Elizabeth Lentz-Hill, Dance
Kelly Lester, Dance
Robert Lochhead, Polymer Science and Engineering
Douglas Masterson, Chemistry and Biochemistry
Melinda McLelland, Marketing and Merchandising
Lawrence Patihi, Psychology
Vijay Rangachari, Chemistry and Biochemistry
Maureen Ryan, English
Yoan Simon, Polymer Science and Engineering
Elena Stepanova, Psychology
Gopinath Subramanian, Polymer Science and Engineering
Monica Tisack, Mississippi Polymer Institute
Rebecca Tuuri, History
Susannah Ural, History
Ellen Weinauer, English
Joseph Weinberg, Political Science
Jeffrey Wiggins, Polymer Science and Engineering
Hao Xu, Biological Sciences
Fan Zhang, Construction
THANK YOU

OUR CAMPUS SPONSORS

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

Vice President for Research
Vice President for Student Affairs
College of Arts and Letters
College of Business
College of Education and Psychology
College of Health
College of Nursing
College of Science and Technology

Graduate School
University Libraries
Dale Center for the Study of War and Society
Mississippi INBRE
Southern Miss Athletics
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Eagle Dining
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We'd like to extend a special thank you to these donors for their kind support of our student scholars:

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

DALE CENTER FOR THE STUDY OF WAR & SOCIETY
The University of Southern Mississippi

The Jack Lucas Award and the Virginia Culpepper Memorial Award
The Symposium takes a great deal of planning and support, and we want to thank all of those who have contributed to the event!

OUR COMMUNITY SPONSORS
Please help us thank our local sponsors by letting them know Hattiesburg appreciates businesses that support student achievement at Southern Miss!

SPECIAL THANKS to Java Moe’s and Glory Bound Gyro Company for their especially generous support!
8:30-9:30 A.M. | CONCURRENT PANELS SESSION I

SCI 1008  NARRATIVES OF LIBERATION AND REPRESSION IN THE SOUTH

A
GRADUATE STUDENT MODERATOR: KAYLA SCHREIBER, ENGLISH

The Case of Vernon Dahmer in Civil Rights Literature
CAROLINE BRADLEY, ENGLISH

The Burning of Zion: The Legend of Zion Seminary and Reverend A.R. Graves
BILLY LOPER, HISTORY

A Crusade Against Lynching in Literature
ALEAH BARNES, ENGLISH

SCI 1014  LANGUAGES OF MUSIC AND DANCE

B
GRADUATE STUDENT MODERATOR: HANNAH WALLACE, ANTHROPOLOGY AND SOCIOLOGY

The Memory That Never Fades
LEXIS NICOLL, DANCE (PERFORMANCE AND CHOREOGRAPHY)

Habitus and Dancers
KATHERINE MACKEY, ANTHROPOLOGY, DANCE (PERFORMANCE AND CHOREOGRAPHY)

The Search of One's Lust for Life
KIRA TOLES, COMMUNICATION STUDIES

SCI 1015  BIOMOLECULES AND THEIR EFFECTS

C
GRADUATE STUDENT MODERATOR: LOGAN BLANCETT, BIOLOGICAL SCIENCES

Evaluating the Effects of Cell Membrane Lipid Composition on the Resistance to Bile-Induced Damage in Avirulent Strains of Listeria monocytogenes
AMBER COATS, BIOLOGICAL SCIENCES (MICROBIOLOGY)

The DNA Damage Response Protein DDR48 Is Required for Antifungal Resistance in the Dimorphic Fungal Pathogen Histoplasma capsulatum
GABRIELLA REYES, BIOLOGICAL SCIENCES (MOLECULAR BIOLOGY)

SCI 1040  OUR MATERIAL WORLD

D
GRADUATE STUDENT MODERATOR: WITOLD FUCHS, POLYMER SCIENCE AND ENGINEERING

Tuning Wrinkled Morphologies in Polymer Brush Surfaces
BRITTANY THOMPSON, POLYMER SCIENCE AND ENGINEERING

Design of Multi-Functional Surfaces via Post-Polymerization Modification of Styrene-Maleic Anhydride Copolymer Brushes
PHILLIP LOGAN, POLYMER SCIENCE

Rationally Designed Peptides as Functional Amyloid Nanomaterials
SAMUEL GEARHART, CHEMISTRY (BIOCHEMISTRY)

SCI 2004  CULTURAL DIFFERENCE IN THE GLOBAL MARKETPLACE

E
GRADUATE STUDENT MODERATOR: ALICE TOWNSEND, MARKETING AND MERCHANDISING

Japan, Panama, and the United States: The Influence of Cultural Values and Personal Ethics on Fraud Prevention Awareness
RACHEL WILLIAMSON, INTERNATIONAL BUSINESS, ACCOUNTING
Adapting Brands for International Markets: The Retail Strategies of Forever 21 in the U.S., Japan, and South Korea
JADE DEDEAUX, MATHEMATICS

The Unicorn Trend: Diffusion Between the U.S. and the U.K.
CATHERINE HASTY, MARKETING

SCI 2005  MINDS, MATTER, MINDS MATTER
GRADUATE STUDENT MODERATOR: KATIE RAMSEY, PSYCHOLOGY

Exploring the Experiences and Mental Health Concerns of 911 Emergency Telecommunicators
ARIEL ELLIOTT, CRIMINAL JUSTICE

Assessing Assessment Methods
MADISON PIKE, FORENSICS

Understanding the American Experience of London Terror Attacks
MARY KATE LOTT, INTERNATIONAL BUSINESS
CLAUDIA DUNNING, BUSINESS ADMINISTRATION (GENERAL BUSINESS)

9:45-11:15 A.M.  |  POSTER PRESENTATIONS

GRADUATE STUDENT ASSISTANTS:
JACQUELINE HARRIS, EDUCATIONAL RESEARCH AND ADMINISTRATION
CASEY THOMAS, EDUCATIONAL RESEARCH AND ADMINISTRATION

1. The Effects of Tissue Preservation on DNA Degradation: A Comparison of Formalin and Carnoy's Solution
JAMIE GOODWIN, FORENSICS (CHEMISTRY AND BIOCHEMISTRY)

2. The Subcloning and Expression of Munc18a in Escherichia coli for Antibody Production and Analysis in Mast Cell Degranulation Reactions
BRANDI GOBLE, BIOLOGICAL SCIENCES

3. The Importance of Multidrug Efflux Activity for the Interaction of Pseudomonas aeruginosa with Methoxybenzaldehyde
SANCHIRMAA NAMJILSUREN, BIOLOGICAL SCIENCES (MICROBIOLOGY)

4. Identification of New Cytotoxic Genes in Cluster K Mycobacteriophages Hammy and Waterfoul
EVAN DERRICK, BIOLOGICAL SCIENCES (MICROBIOLOGY)
PAIGE BRADDY, BIOLOGICAL SCIENCES (MOLECULAR BIOLOGY)
BRITTNEN JOHNSON, BIOLOGICAL SCIENCES (MICROBIOLOGY)
TEVIN TILLMAN, BIOLOGICAL SCIENCES (MOLECULAR BIOLOGY)
DONOVAN WEEKLEY, BIOLOGICAL SCIENCES (MICROBIOLOGY)
JOHN MARSHALL DIFFEY, CHEMISTRY (BIOCHEMISTRY)
ROBERT SANDERS, BIOLOGICAL SCIENCES (MICROBIOLOGY)

5. Incorporation of Fatty Acids Into the Cellular Membrane of Salmonella After Exposure to Bile
BETSY REDFERN, BIOLOGICAL SCIENCES, NUTRITION AND DIETETICS

6. Viability of Select Bacteria on Various Surfaces Found in Healthcare Facilities
TAYLOR SMITH, MEDICAL LABORATORY SCIENCE

7. Functional Analysis of Conserved Hypothetical Genes From Cluster K Mycobacteriophages Hammy and Waterfoul
ELIZABETH LAWHEAD, BIOLOGICAL SCIENCES
MATTHEW GUILLOT, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCE)
SARAH SPENCE, BIOLOGICAL SCIENCES (BIOMEDICAL SCIENCE)
DEAN SCAFIDI, BIOLOGICAL SCIENCES (MOLECULAR BIOLOGY)
CHANCE FORD, BIOLOGICAL SCIENCES (MOLECULAR BIOLOGY)
CHAZDEN BLACKMON, BIOLOGICAL SCIENCES (MICROBIOLOGY)
RONALD ROBINSON, BIOLOGICAL SCIENCES (MICROBIOLOGY)
SUKRITI BHATTARAI, BIOLOGICAL SCIENCES (MICROBIOLOGY)

8. Investigating the Functional Role of beta-1,4-Galactosyltransferase in the Lone-Star Tick, Amblyomma americanum
JOSHUA LANGE, BIOLOGICAL SCIENCES

9. The Stress-Response Protein DDR48 Is Required for Proper Stress Response Signalling in the Pathogenic, Dimorphic Fungus Histoplasma capsulatum
KAURI RUNGE, BIOLOGICAL SCIENCES

10. Estimation of Stature From Long Bone Fragments
MONICA RENO, ANTHROPOLOGY, FORENSICS
11. Stoichiometry, Fungal Dynamics, and Decomposition of Standing Dead Emergent Macrophytes: A Synthesis of Field Studies
   TORI HEBERT, MARINE BIOLOGY

12. Effects of Temperature and Light Gradients on Algal Stimulation of Litter-Associated Microbial Heterotrophs
   CODY POPE, BIOLOGICAL SCIENCES

13. Apparent Oxygen Utilization of the Biology in Bear Point Bayou
   ANNA MILLENDER, MARINE BIOLOGY

14. The Distribution of Ocean Quahogs, Atlantic Surfclams, and Their Shells on the Mid-Atlantic Bight Continental Shelf
   ANJA M. EWING, BIOLOGICAL SCIENCES

15. Comparative Morphometrics of Flowers of Two Species of Phlox: P. hirsuta and P. speciosa
   DORESSA WILLIAMS, BIOLOGICAL SCIENCES (ENVIRONMENTAL BIOLOGY)

16. Synthesis of 4-Arm Star Poly(Lactic Acid) for Additive Manufacturing
   ALLISON ROBERTS, POLYMER SCIENCE

17. A Bio-Based Pro-Antimicrobial Network via Degradable Acetal Linkages
   MICHAEL SANDOZ, POLYMER SCIENCE AND ENGINEERING

18. Synthesis of Controlled Polyacrylonitrile (PAN) Precursors for Carbon Fiber
   ROGER DIAS, POLYMER SCIENCE

19. Thermally-Diffused Curing of Composite Matrices via UV-Initiated Copper(I)-Catalyzed Azide-Alkyne Cycloaddition
   NATHANIEL PRINE, POLYMER SCIENCE AND ENGINEERING

20. Changes in Lead, Copper, and Iron Concentrations in University Tap Water
   ALISON MCLENDON, BIOLOGICAL SCIENCES
39. Examining Protective Factors and Their Role in Adolescent Substance Use
   JAPRIEST JERRY, PSYCHOLOGY

40. Do Expectations of Study Tasks Actually Affect Memory Performance? Evaluating the Role of Task Expectancy in the Levels-of-Processing Framework
   JOSEPH SMITH, PSYCHOLOGY
   KYLA COSENTINO, PSYCHOLOGY

41. Stress, Anxiety, and Depression in Relation to Program Perceptions Among At-Risk White and Non-White Adolescents
   LATISHA SWYGERT, PSYCHOLOGY

42. Meaning Detection Processes Influence Receptivity to Bullshit
   SHELBY MCGREW, PSYCHOLOGY

SCI SECOND FLOOR, CENTRAL HALLWAY

43. Disparities in How Religious Influences Impact Risky Behavior in White and African American Adolescents
   LAQUITTA SIMPSON, PSYCHOLOGY

44. How Similar Is Pet Attachment to Romantic Attachment? A Correlational Test and Exploration of Potential Moderators
   COURTNEY HARLOWE, PSYCHOLOGY

45. Memory of Love Towards Parents Among Black and White College Students
   CORAI JACKSON, PSYCHOLOGY

46. Holland’s Theory, Career Decisions, and Major Choices
   SHIANNE GALUSKA, PSYCHOLOGY
   BRANDI MCINNIS, PSYCHOLOGY

47. Evaluating the Effects of Disease Contamination on Memory for Word Lists
   LAURA PAZOS, BIOLOGICAL SCIENCES

48. From Incarceration to Social Work Education
   JANAY MORGAN, SOCIAL WORK

49. Addiction Treatment Outcomes and Spirituality: What Is the Relationship?
   SIDNEY SMITH III, SOCIAL WORK

50. SIDS Prevention: A Survey of Nursing Student Knowledge and Compliance
   MORGAN PEOPLES, NURSING

51. Ostomy Patients' Decisions on Device Concealment Based on Social Support
   CRYSTAL PRESCOTT, COMMUNICATION STUDIES

52. Facebook Surveillance and Jealousy
   DANICQUA STEPHENS, COMMUNICATION STUDIES

53. Exploring the Relationship Between Personality Characteristics and Eyewitness Memory Recall: A Test of the Weapons-Focused Effect
   EMILY STAHL, FORENSICS

SCI SECOND FLOOR, SOUTH HALLWAY

54. Christian Men: The Intersection of Masculinity and Religion
   CHARLIE GRANTHAM, SOCIOLOGY

55. Fair and Equal Education for All? An Evaluation of Potential Factors of the Rate of Academic Achievement at PWIs and HBCUs
   GARY PLOWDEN, POLITICAL SCIENCE

56. Child Abuse Centers: Effectiveness of Forensic Interviewing
   ANNA MERCER, POLITICAL SCIENCE

57. Half Empty/Half Full
   NOELLE BILLINGS, DANCE (PERFORMANCE AND CHOREOGRAPHY)

58. Moving to the Beat: The Role of Movement on the Perception of Musical Expressivity
   MOLLY EVANS, MUSIC EDUCATION

59. An Analysis of Society’s Fear of Embodied Differences Through the Lens of Mary Shelley’s Frankenstein
   ASHLEY HOBNsense, ENGLISH, CHEMISTRY (BIOCHEMISTRY)

60. Do Perceptions of Businesses Differ Between Higher and Lower Counts of Social Media Post Engagements?
   TALLY SHAW, MARKETING

61. New Stacked Central Configuration for Planar 6-Body Problem
   GOKUL BHUSAL, MATHEMATICS, COMPUTER SCIENCE
   HAMAS TAHIR, COMPUTER SCIENCE, MATHEMATICS, POLYMER SCIENCE AND ENGINEERING

62. Using Pattern Area Ridge Flow in the Three Areas of the Palm to Determine Classification Trends
   ASHTON HORTON, FORENSICS

63. An Empirical Study on the Recovery Speed of USB Flash Drives Utilizing RAID-5 Compared to HDDs and SSDs
   JOSHUA MARTINS, INFORMATION TECHNOLOGY (NETWORKING)

64. Developing a Model for Radiation-Induced Water Aerosol Formation
   MEGAN PAYNE, PHYSICS

65. A Real-Time Human Activity Recognition in 2D Videos
   PAWAN SHARMA, INFORMATION TECHNOLOGY
### SC1008 READING THE 20TH CENTURY

**Graduate Student Moderator:** Karla Keffer, English

- **True Love Defined as Sacrificial in Hemingway's Novels**
  - John Creel, English

- **Faulkner's Rebellious Southern Women**
  - Mallory Head, English

- **Naturalism and the New Woman: Kate Chopin's The Awakening and Edith Wharton's The House of Mirth**
  - Lindsay Patorno, English

- **Ecofeminism and Misogyny in The Secret Garden**
  - Julie Alford, Liberal Studies

### SC1014 MADNESS, VIOLENCE, AND DESIRE

**Graduate Student Moderator:** Jonathan Snyder, English

- **Innocence and Power**
  - Lily Brady, English, French

- **Indicted Knights: Female Agency and the Adjudication of Rape in Arthurian Romances**
  - Jessica Carrell, English

- **Nineteenth-Century Ideas of Madness in Wordsworth's "The Thorn"**
  - Emily Rasch, English

- **Names of Desire**
  - James Moseley, English

### SC1015 THE MEDIUM AND THE MESSAGE

**Graduate Student Moderator:** Jacob Featherling, History

- **The Blacklist Curtain Call**
  - Kristen McGuire, History

- **Bebop and Beats: Jazz, Literature, and Social Revolution**
  - Maisen Daffron, History, Philosophy

- **The Art of the Dress: How Getting Into Costume Changes an Actor's Self-Perception**
  - Ella Embry, Theatre (Acting)

- **The Effect of Ernest Becker's "Hero Systems" in Jean de Berry's Très Riches Heures**
  - Myranda Lavigne, Art

### SC1040 WORK, FAITH, AND COMMUNITY IN THE U.S. SOUTH

**Graduate Student Moderator:** Elizabeth Greer, History

- **Southern Baptists and the Moral Majority: A Study on the Development of Baptist Political Theology from 1533 to 1989**
  - Nathan Barron, Political Science

- **Work Till Death: Limited Freedom of South Mississippi Turpentine Laborers**
  - Derrick Routon, History

- **The Union Is Behind Us: The Impact of Operation Dixie in Mississippi**
  - Cade Colleva, History

- **Mississippi City Cemetery Project: Digging Up the Past**
  - Hailey Ulrich, History (Social Studies Licensure)
### SCI 2004
**BIOTIC AND ABIOTIC ENVIRONMENTAL FACTORS**

**GRADUATE STUDENT MODERATOR:** MELISSA BROCK, COASTAL SCIENCES

- *Age and Growth of Red Drum (Sciaenops ocellatus) in the North-Central Gulf of Mexico*
  - **BECKAH CAMPBELL, MARINE SCIENCE**

- *Evidence of Past Large Storms or Tsunamis From an Uplifted Section of the Southern Hikurangi Margin, Wairarapa Coast, New Zealand*
  - **STEPHEN MITCHELL, MARINE SCIENCE**

- *Aquatic Insect Recolonization of Heliconia Systems in Puerto Rico*
  - **JACLYN EVERLY, BIOLOGICAL SCIENCES (ENVIRONMENTAL BIOLOGY)**

- *The Effects of Acorns on Performance in Two Invasive Mosquito Species*
  - **RACHEL ROGERS, BIOLOGICAL SCIENCES**

### SCI 2005
**BIOLOGY MEETS CHEMISTRY**

**GRADUATE STUDENT MODERATOR:** DAVID SLIMAN JR., CHEMISTRY AND BIOCHEMISTRY

- *Pro-Antimicrobial Network via Degradable Acetals (PANDAs) Using Thiol-ene Photopolymerization*
  - **WILLIAM MARTIN, POLYMER SCIENCE**

- *Bio-Based Pro-Antimicrobial Networks Synthesized via Thiol-ene Photopolymerization*
  - **SARAH SWILLEY, POLYMER SCIENCE**

- *Investigation of the Effects of Hydrogen Bonding on the Enantiomeric Excess of Pig Liver Esterase Hydrolysis Products*
  - **MATTHEW HASLER, CHEMISTRY**

- *Optimization of Quinoline-Based HIV-1 Integrase Inhibitors*
  - **SHERRIE AMADI, CHEMISTRY (BIOCHEMISTRY)**

### SCI 2009
**NEW CHEMICALS THROUGH SYNTHESIS**

**GRADUATE STUDENT MODERATOR:** EMILY CRULL, CHEMISTRY AND BIOCHEMISTRY

- *Diastereoselective Synthesis of 2,4,6-Trisubstituted Piperidines via aza-Prins Cyclization*
  - **JOHN HOOD, CHEMISTRY (BIOCHEMISTRY)**

- *Organocatalyst-Activated Tsuji-Trost Asymmetric Allylic Alkylation*
  - **CAROLINE DEGRAW, CHEMISTRY (BIOCHEMISTRY)**

- *Rational Design of Sensitive and Selective Conjugated Polymer-Based Fluorescent Sensors for the Detection of Phosphate*
  - **ERIN CRATER, POLYMER SCIENCE, CHEMISTRY**

- *Cobalt Selenide as a Novel Earth-Abundant Catalyst for Solar Water-Splitting*
  - **NATHANIEL KURTZ, CHEMISTRY**

### 2:30-3:30 P.M. | CONCURRENT PANELS SESSION III

#### SCI 1008
**RELATIONSHIPS, DISCRIMINATION, AND GROUP BOUNDARIES**

**GRADUATE STUDENT MODERATOR:** AARON BERMOND, PSYCHOLOGY

- *The Effects of Skin Tone on the Perception of Discrimination in Young African American Women*
  - **DANIELLE STAMPS, PSYCHOLOGY**

- *Sense of Belonging and Student Involvement*
  - **GABRIELLE CHAMOUN, RECREATION (THERAPEUTIC RECREATION)**

- *Snap-Parents: Perception, Literacy and Monitoring of Snapchat Among Parents of Adolescents and the Creation of a Snapchat Educational Workshop*
  - **AERIAL HOLMES, PSYCHOLOGY**
SCI 1014  COMPARATIVE FASCISMS AND VIOLENCE IN EUROPE

GRADUATE STUDENT MODERATOR: ANDY SIMS, HISTORY

Bodies: Weapons of Mass Destruction
SLOAN GARNER, THEATRE

Fascism Within the British Aristocracy During the Interwar Period (1919-1939)
CAROLINE CARNEY, HISTORY, POLITICAL SCIENCE

Jasenovac and Ustaša Violence Against Serbs in the NDH
MICHAEL STOKES, PHILOSOPHY

SCI 1015  THE POWER OF WORDS

GRADUATE STUDENT MODERATOR: BRANDON KNIGHT, COMMUNICATION STUDIES

Gendered Speaking Patterns of Supreme Court Oral Arguments from 1981-2016
GILLIAN PURSER, POLITICAL SCIENCE

Tengo un Sueño: Rhetorical Analysis of César Chávez’s Speech, “Lessons of Dr. Martin Luther King Jr.”
SAMANTA RAMIREZ GARDUNO, COMMUNICATION STUDIES

The Dangers of Terrorism
WILLIAM SIMPSON, COMMUNICATION STUDIES

SCI 1040  WORLD WAR II BEYOND THE FRONT LINES

GRADUATE STUDENT MODERATOR: KEVIN GRUBBS, HISTORY

Dynamics of Women’s Labor Supply During World War II
JASMINE KELLEY, ECONOMICS (MATHEMATICS), MATHEMATICS

Warfighters and Prizefighters: Boxing Programs at Camp Shelby During World War II
TIMOTHY BROWNLEE, HISTORY

Historians’ Incomplete Portrait of Black Defense Workers During World War II
BRITTANY CAREY, HISTORY

SCI 2004  CONTROL, ANALYSIS AND DESIGN

GRADUATE STUDENT MODERATOR: EVA COMINO, MATHEMATICS

QuickLabel: A Semantic Segmentation Research Toolkit
PUJAN PAUDEL, COMPUTER SCIENCE

A Logistic Regression Analysis of First-Time College Students’ Completion Rates at The University of Southern Mississippi
JESSE ROBINSON, MATHEMATICS

Molecules to Medicines: Design and Synthesis of Potential Protein Kinase Inhibitors
HAYLEY ALLEN, CHEMISTRY (BIOCHEMISTRY)

SCI 2005  COMPETING IN A GLOBAL ENVIRONMENT

GRADUATE STUDENT MODERATOR: MARA BAKER, ACCOUNTING

Ring the Bell and Live Mas: Taco Bell’s Marketing Strategies in South Korea
MICHELLE LE, MARKETING

International Brand Adaptation to Local and National Cultures: Comparing Starbucks Venues in Japan, South Korea, and the United States
COURTNEY KIRKHAM, COMPUTER SCIENCE

Competition and Entrepreneurship: The Role of Gender and Education
JUSTIN HUMPHREYS, ECONOMICS
Join us for a celebration of creative activity by undergraduates at Southern Miss.

Recognition of visual artists
WHITSON RAMSEY, ART (DRAWING AND PAINTING)
JESSICA EHRET, ART (SCULPTURE)
MADELINE BATES, ART (SCULPTURE)
LOGAN SMITH, ART (SCULPTURE)

Snowsounds by Christine Beard
PERFORMED BY MOLLY EVANS, MUSIC (MUSIC EDUCATION)

Half Empty/Half Full (excerpt)
CHOREOGRAPHED, FILMED AND EDITED BY NOELLE BILLINGS, DANCE (PERFORMANCE AND CHOREOGRAPHY)
PERFORMED BY USM DANCE MAJORS

The Loss of a Loved One
WRITTEN AND PERFORMED BY
LOGAN MCCARTY, THEATRE (ACTING)
KATIE COXWELL, THEATRE (ACTING)

Finding Light (excerpt)
WRITTEN BY ELLA EMBRY, THEATRE (ACTING)
PERFORMED BY USM THEATRE MAJORS

String Quartet in E minor, Op. 44, No. 2 (First Movement) by Felix Mendelssohn
PERFORMED BY
FLORENCIA COZZA, MUSIC (PERFORMANCE-STRINGS)
MIRNA TERESA RODRIGUEZ, MUSIC (PERFORMANCE-STRINGS)
CECIL HENRIQUEZ, MUSIC
FRANCISCO MARCO, MUSIC (PERFORMANCE-STRINGS)

The Unknown and the Forgotten (excerpt)
WRITTEN AND PERFORMED BY
CHARITY KELLY, THEATRE
HARLEM PERFORMANCE GROUP

Idle Hands
WRITTEN AND READ BY JILLIANNE LARSON, ENGLISH

“Michael in the Bathroom” from Be More Chill
PERFORMED BY RYAN KELLY, THEATRE

The Memory That Never Fades (excerpt)
CHOREOGRAPHED BY LEXIS NICOLL, DANCE (PERFORMANCE AND CHOREOGRAPHY)
PERFORMED BY USM DANCE MAJORS

“Fun King John Is Dead” (Selections from Fun Home, King John and Rosencrantz and Guildenstern Are Dead)
PERFORMED BY
KELSEY HEBERT, THEATRE (ACTING)
ISMAELA STEWART, THEATRE (ACTING)

5 P.M. | AWARDS CEREMONY

Our students are competing today for $15,000 in prizes, sponsored by Southern Miss alumnus 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 award prizes to the top presentations of the Symposium.
Hosted by the
Drapeau Center for Undergraduate Research
and the Honors College
at The University of Southern Mississippi