Oral and Poster Presentations
Schedule of Events

THE UNIVERSITY OF ALABAMA

April 16, 2013
Bryant Conference Center
PARTICIPATING COLLEGES AND SCHOOLS

URCA COORDINATORS

Chair - Dr. Joe Benson, Vice President for Research
Arts & Sciences - Dr. Jimmy Williams
Blackburn Institute - Dr. Philip Westbrook
Capstone International - Dr. Teresa Wise
Culverhouse College of Commerce & Business Administration - Dr. Mike Conerly
Communication and Information Sciences - Dr. Carol Mills
Education - Dr. David Hardy
Engineering - Dr. John Wiest
Emerging Scholars - Dr. Ann Webb
Graduate School - Dr. Dave Francko
Honors College - Dr. Shane Sharpe
Human Environmental Sciences - Dr. Lori Turner
McNair Scholars - Dr. Nancy Campbell
Nursing - Ms. Ann Graves
Social Work - Dr. Kathleen Bolland
Student Affairs - Dr. Mark Nelson
University Libraries - Dr. Millie Jackson
Dear Participants:

Welcome to the Sixth Annual University of Alabama Undergraduate Research and Creative Activity Conference. We are excited to have over 500 students representing all academic disciplines participating in this year’s event. This is a record number of participants and the continued growth in participation proves that research and creative activities have become a hallmark of the undergraduate experience at The University of Alabama.

Our faculty constantly seeks new opportunities to engage our undergraduate students in quality research, discovery and creative endeavors that will define their academic experience at the Capstone. We want to give special thanks to the faculty members who have mentored our student presenters today as these talented students begin what we hope will be a long journey of scholarly achievement and discovery. We also offer hearty congratulations to each student participant for his/her contribution to the impressive body of work presented today.

Through the collaborative efforts of the Office for Research, the Graduate School, the Undergraduate Research and Creative Activities Committee and a number of colleges and schools, this has become a premier event at The University of Alabama. Sincere thanks to these groups for making today’s conference possible through their tireless efforts in planning and development.

We celebrate this established tradition of annually recognizing the research and creative accomplishments of our best and brightest undergraduate students.

Judy Bonner  
President

Joe Benson  
Vice President for Research and Interim Provost
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*Abstracts can be found online at [www.osp.ua.edu/urca2013abstracts.pdf](http://www.osp.ua.edu/urca2013abstracts.pdf) or by using the tags under Additional Resources on page 64.
Schedule of Events

Monday, April 15

1:00-4:00p.m. | Bryant Conference Center
Oral Presentation Check-in/Upload PowerPoint - All Colleges
Poster Presentation Check-in and Set-up - Arts & Sciences

Tuesday, April 16

All Events at the Bryant Conference Center

7:30am - 8:00am
Poster Presentation Check-in and Set-up - Arts & Sciences

8:00am - 10:00am
Judges’ Preliminary Review of Posters - Arts & Sciences

10:00am - 12:00pm
Poster Presentations - Arts & Sciences

11:00am - 12:15pm
Oral Presentation Check-in/Upload PowerPoint - All Colleges

12:00pm - 12:15pm
Poster Presentation Break Down - Arts & Sciences

12:00pm - 5:00pm
Oral Presentations - Arts & Sciences

12:15pm - 1:00pm
Poster Presentation Check-In and Set-Up - Other than Arts & Sciences

1:00pm - 4:00pm
Oral Presentations - Other than Arts & Sciences

1:00pm - 4:00pm
Poster Presentations - Other than Arts & Sciences

Monday, April 22

11:30-1:00p.m. | Hotel Capstone
Recognition Luncheon and Bestowing of Awards
COLLEGE OF ARTS & SCIENCES

DIVISION OF FINE ARTS & HUMANITIES

SCHEDULE OF ORAL PRESENTATIONS

Oral presentations in the Division of Fine Arts & Humanities will be held in the Wilson Room, Bryant Conference Center. From the oral presentations, judges will select a first, second, third and fourth place winner.

Wilson Room

12:00
Olivia West, Art & Art History
Faculty Mentor: Stacy Morgan, American Studies
Faith Ringgold's 'American People Series' and the Fight to Break the Silence

12:20
Edward Gray, History
Faculty Mentor: Daniel Riches, History
Not Just a War of Religion: The Siege of La Rochelle (1627-8) and the Centralization of the French Monarchy

12:40
Elizabeth Landers, Music
Faculty Mentor: Andrea Cevasco, Music
An Evaluation and Compilation of Multiple Apple iOS Based Applications and Their Potential Uses Within Music Therapy Settings

1:00
Hannah Hicks, Philosophy
Faculty Mentor: Merinda Simmons, Religious Studies
Modern Family Law: Developing Emotional Abuse Statutes that Will Effectively Serve LGBT Youth

1:20
Lindsey Jacobi, Religious Studies
Faculty Mentor: Merinda Simmons, Religious Studies
Southern Femininity in Film

1:40
Samantha King, Religious Studies
Faculty Mentor: Merinda Simmons, Religious Studies
A South Full of Beautiful Creatures?
2:00
Alexis Poston, Religious Studies
Faculty Mentor: Merinda Simmons, Religious Studies
Still Standing: The Role of Kahal Kadosh Beth Elohim in the Physical and Spiritual Growth of the Jewish Community of Charleston, South Carolina

2:20
Benjamin Flax, Religious Studies
Faculty Mentor: Merinda Simmons, Religious Studies
The Effects of Stained Glass: Rose-Tinted Views of Antebellum Life

2:40
Gabrielle Taylor, Telecommunications & Film
Faculty Mentor: Stacy Morgan, American Studies
The K-pop Phenomenon

DIVISION OF FINE ARTS & HUMANITIES

LISTING OF POSTER PRESENTATIONS

In the Division of Fine Arts & Humanities, the initial judging of the poster presentations will take place between 8:00 and 10:00 a.m. without the students being present. Beginning at 10:00 a.m., judges will meet with each student and discuss his or her presentation. From the poster presentations, a first, second and third place winner will be selected. Other presentations may be selected for Honorable Mention.

1
Greg Randall, Art & Art History
Faculty Mentor: Sarah Marshall, Art & Art History
Panoramic Viewing System in an Artistic Context

2
Christopher Nix, Music
Faculty Mentor: Andrea Cevasco, Music
The Effects of a Single Music Therapy Session on Self Perceived Levels of Pain, Relaxation, Fatigue, and Overall Mood of Patients in an In-patient Oncology Unit

3
Jennifer Haselden, Music
Rahel Kim, Music
Faculty Mentor: Andrea Cevasco, Music
The Effects of a Single Music Therapy Session on Self Perceived Levels of Depression, Anger, and Anxiety of Patients in an In-Patient Psychiatric Facility
DIVISION OF SCIENCE & MATHEMATICS

SCHEDULE OF ORAL PRESENTATIONS

Oral presentations in the Division of Science & Mathematics have been divided into two groups and will be held in the Central Bank and Birmingham rooms, Bryant Conference Center.

In each group, judges will select the top two oral presentations; other presentations may be selected for Honorable Mention. The students with the top two oral presentations in each group will then present to the judges from the other group. This second presentation will take place in the room in which the student initially presented. After the second round of presentations, the judges will select a first, second, third and fourth place winner.

Group 1  Central Bank Room

12:00
Akeem Borom, Biological Sciences
Faculty Mentor: Kim Caldwell, Biological Sciences
ALS Findings: Torsin-Mediated Rescue of SOD1 ER Stress-Related Toxicity

12:20
Sarah Crocker-Buta, Biological Sciences
Faculty Mentor: Stephen Secor, Biological Sciences
Determinates and repeatability of specific dynamic action for the corn snake Pantherophis guttatus
<table>
<thead>
<tr>
<th>Time</th>
<th>Name</th>
<th>Faculty Mentor</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:40</td>
<td>Grant Fairchild</td>
<td>Kim Caldwell</td>
<td>Development of an Animal Model for Dopamine Neuron Regeneration</td>
</tr>
<tr>
<td>1:00</td>
<td>Amelia Randazzo</td>
<td>Stephen Secor</td>
<td>Rapid upregulation of the python’s small intestine</td>
</tr>
<tr>
<td>1:20</td>
<td>Joana Hubickey</td>
<td>Laura Reed</td>
<td>The Use of a Drosophila LanA Mutant as a Model for Gestational Diabetes</td>
</tr>
<tr>
<td>12:00</td>
<td>Sean Mendez</td>
<td>Laura Reed</td>
<td>TreadWheel - Novel Exercise Apparatus for D. Melanogaster</td>
</tr>
<tr>
<td>12:20</td>
<td>Erik Gentry</td>
<td>Ryan Earley</td>
<td>A grain of salt: salinity preferences in the mangrove rivulus fish</td>
</tr>
<tr>
<td>12:40</td>
<td>Sergei Wallace</td>
<td>Robin Rogers</td>
<td>Extraction of Uranium from Seawater Using Modified Chitin Fibers Derived From Shrimp Shell Waste</td>
</tr>
<tr>
<td>1:00</td>
<td>Evan McConnell</td>
<td>Laura Busenlehner</td>
<td>Investigation into the overall conformational changes of human estrogen receptor-Î± upon ligand binding</td>
</tr>
<tr>
<td>1:20</td>
<td>Malia Bunt</td>
<td>Christopher Lynn</td>
<td>A Study in Human Habitat Selection and Biophilia</td>
</tr>
</tbody>
</table>
DIVISION OF SCIENCE & MATHEMATICS

LISTING OF POSTER PRESENTATIONS

In the Division of Science & Mathematics, the poster presentations have been divided into four groups. The judging of the poster presentations will take place between 8:00 and 10:00 a.m. without the students being present. Beginning at 10:00 a.m., judges will meet with each student and discuss his or her presentation. From each group, the top two poster presentations will be selected; other presentations may be selected for Honorable Mention.

The second round of judging will consist of eight poster presentations, the top two from each group. From these eight presentations, a first, second, third and fourth place winner will be selected; other presentations may be selected for Honorable Mention.

Group 1

8
Alexandra Waits, Biological Sciences
Faculty Mentor:  Ryan Earley, Biological Sciences
*Temperature Effects on Sex Steroids and Gene Expression in the Hermaphroditic Fish Kryptolebias marmoratus*

9
Anna Hawkins, Biological Sciences
Faculty Mentor:  Leslie Rissler, Biological Sciences
*Flattened Musk Turtle Population Data Analysis*

10
Anna Moyer, Biological Sciences
Emily Peel, Biological Sciences
Faculty Mentor:  Janis O'Donnell, Biological Sciences
*Paraquat-induced Oxidative Stress in a Drosophila von Hippel Lindau Mutant*

11
Annie Lenox, Biological Sciences
Faculty Mentor:  Ryan Earley, Biological Sciences
*Effect of Male Presence on Outcrossing in Kryptolebias marmoratus*

12
Cheyenne Paiva, Biological Sciences
Faculty Mentor:  Laura Reed, Biological Sciences
*Genetic Basis of Genotype-by-Environment Interactions Underlying Physiological Modules of Metabolic Syndrome-like Symptoms in Drosophila*
13
Cole Buchanan, Biological Sciences
Faculty Mentor: Matthew Jenny, Biological Sciences
Development of a Web-Based Transcriptomic Database for Marine and Aquatic Organisms

14
Dana Davis, Biological Sciences
Faculty Mentor: Laura Reed, Biological Sciences
Insulin/TOR Gene Mutations and Triglyceride Storage in Drosophila

15
Danny Laderberg, Biological Sciences
Faculty Mentor: Stephen Secor, Biological Sciences
The regulation of blood glucose for the diamondback watersnake

16
Divya Nadella, Biological Sciences
Faculty Mentor: Laura Reed, Biological Sciences
Gene Effects on Triglyceride Concentration in Drosophila melanogaster

17
Dylan Marchione, Biological Sciences
Faculty Mentor: Stevan Marcus, Biological Sciences
Fission Yeast as a Model Organism to Elucidate Molecular Targets of the Anti-Tumor Drug Avicin

18
Emily Liang, Biological Sciences
Faculty Mentor: Jeremy Bailin, Physics & Astronomy
Synthetic Images of Simulated Galaxies

19
Jessica Zielinski, Biological Sciences
Joshua Beckedorf, Biological Sciences
Faculty Mentor: Stephen Secor, Biological Sciences
Impact of incubation hypoxia on digestive energetics for the snapping turtle

20
John Porter, Biological Sciences
Faculty Mentor: Julie Olson, Biological Sciences
Pigmentation of Neurodegenerative and Non-Neurodegenerative Streptomyces Species

21
Jonathan Belanich, Biological Sciences
Faculty Mentor: Stephen Secor, Biological Sciences
Postprandial Metabolic Response and Specific Dynamic Action of scorpions
22

Katy Buddemeyer, Biological Sciences
Faculty Mentor: Stephen Secor, Biological Sciences
Negative calorie food: fact or fiction

23

Koushik Kasanagottu, Biological Sciences
Eric Wenzinger, Chemistry
Faculty Mentor: Janis O'Donnell, Biological Sciences
The Role of Leonardo in Alpha-Synuclein-induced Neurodegeneration

24

L. Michael Wells, Biological Sciences
Faculty Mentor: Carol Duffy, Biological Sciences
Analysis of the effects on Tetherin expression and associated virions among Human Herpes Simplex Virus 1 mutants

25

Leah Leonard, Biological Sciences
Faculty Mentor: Laura Reed, Biological Sciences
The Effects of High Fat and Normal Diets on the Dark Pupae Weight of Drosophila melanogaster

Group 2

26

Luke Bishop, Biological Sciences
Faculty Mentor: Ryan Earley, Biological Sciences
Discovering the Metabolic Potential of the Ideal "Cloning" Organism

27

Madeleine Haddock, Biological Sciences
Faculty Mentor: Ryan Earley, Biological Sciences
Parasites and personality: Do trematodes manipulate boldness in California killifish?

28

Matthew Larkin, Biological Sciences
Faculty Mentor: Stephen Secor, Biological Sciences
Variation in organ and tissue mass loss during fasting for the diamondback watersnake

29

Molly Cook, Biological Sciences
Faculty Mentor: Ryan Earley, Biological Sciences
Reversed Sexual Dimorphism and Male Mate Choice in Convict Cichlids (Amatitlania nigrofasciata)
30
Nicholas Izor, Biological Sciences
Faculty Mentor: Laura Reed, Biological Sciences
*Genotype-by-Diet Interactions in Blood Glucose Levels of Drosophila Melanogaster*

31
Olivia Grubbs, Biological Sciences
Faculty Mentor: Julie Olson, Biological Sciences
*Soil Streptomyces: Beneficial or Harmful?*

32
Paula Adams, Biological Sciences
Faculty Mentor: Ryan Earley, Biological Sciences
*Using Genomics to Understand the Cause of Male Development in the Mangrove Rivulus*

33
Ryan Jones, Biological Sciences
Faculty Mentor: Ryan Earley, Biological Sciences
*Using 3D Quick Prototyped Models as Biological Analogs for Size Dependent Aggression*

34
Samantha Durfey, Biological Sciences
Faculty Mentor: Robert Findlay, Biological Sciences
*Two-Stage Bioreactor for the Production of Poly-β-Hydroxyalkanoates*

35
Sarah White, Biological Sciences
Ryan James, Biological Sciences
Faculty Mentor: Ryan Earley, Biological Science
*Developmental Response to Predator-Related Cues*

36
Yuliya Birman, Chemistry
Brittani Hays, Chemistry
Faculty Mentor: Patrick Frantom, Chemistry
*Determining the Influence of the Metal-Binding Site in Isopropylmalate Synthase from Mycobacterium tuberculosis*

37
Christie Talley, Human Nutrition & Hospitality Management
Faculty Mentor: Laura Reed, Biological Sciences
*Egg Dumping Patterns in Drosophila melanogaster*
Mallory Thompson, Nursing
Faculty Mentor: Kevin Shaughnessy, Chemistry
*Neophylphosphine-supported palladium catalysts for cross-coupling reactions*

Andrea Jaegge, Geography
Faculty Mentor: Yuehan Lu, Geological Sciences
*Land-derived Dissolved Organic Matter and Nutrients in Washington-Oregon Coastal Waters*

Jonathon Romero, MINT
Faculty Mentor: Bill Butler, MINT
*L21 Structure Full Heusler Alloys with Low Moments*

Justin Brooks, Physics & Astronomy
Faculty Mentor: Conor Henderson, Physics & Astronomy
*The Search for Warped Extra Dimensions at the LHC*

Jessica White, Psychology
Faculty Mentor: Beverly Thorn, Psychology
*Patients presenting to the Emergency Department with pain: Relationship of pain intensity and vital signs with psychological variables*

Ryan Turner, Business Administration
Faculty Mentor: Janis O'Donnell, Biological Sciences
*A novel web application for rapid multi-functional genetic analyses of multiple genes: TFconnect*

Group 3

Ali Yousuf, Chemistry
Faculty Mentor: Gregory Szulczewski, Chemistry
*Conductivity Studies of Tellurium and Bismuth Telluride Nano-wires in PEDOT:PSS Thin Films*

Hudson Pierce, Chemistry
Faculty Mentor: Kevin Shaughnessy, Chemistry
*Synthesis of Air-Stable Palladium Precatalysts and Their Reactivity in Cross-Coupling Reactions*
46
Jason Wang, Chemistry
Faculty Mentor: Kevin Shaughnessy, Chemistry
*Air-Stable Trialkylphosphine Palladium Complexes as Precatalysts for Cross-Coupling Reactions*

47
Jesse Gettinger, Chemistry
Faculty Mentor: David Nikles, Chemistry
*Poly(ethylene glycol-caprolactone-lactic acid) Triblock Copolymers for a Magnetically Triggered Drug Delivery System*

48
Johan Both, Chemistry
Faculty Mentor: Silas Blackstock, Chemistry
*A Bis(Azo) Molecule that Coils and Uncoils*

49
Karson Brooks, Chemistry
Faculty Mentor: Shanlin Pan, Chemistry
*Surface Enhanced Raman Spectroscopy on Single Molecules of Trans-β-apo-8' Carotenoic Acid on Nanostructured Surfaces*

50
Lynda Truong, Chemistry
Faculty Mentor: Stephen Woski, Chemistry
*The Synthesis of Molecular Electronics*

51
Margaret Johnson, Chemistry
Faculty Mentor: David Nikles, Chemistry
*Use of Quantum Dots as Nanothermometers for Measuring the Heating of Magnetic Nanoparticles in Micelles*

52
Meredith Rickard, Chemistry
Faculty Mentor: David Dixon, Chemistry
*Frustrated Lewis Pairs for Catalyzing the Reduction of Carbon Dioxide*

53
Mirza Beg, Chemistry
Faculty Mentor: David Nikles, Chemistry
*Magnetic Particles with a Polycaprolactone Coating and Preparation of Magnetic Micelles for Drug Delivery*

54
Morgan Whitaker, Chemistry
Faculty Mentor: David Nikles, Chemistry
*Polymer Coated Magnetite Nanoparticles as Cancer Drug Delivery Devices*
Nicholas Laskay, Chemistry
Kevin Duque, Chemistry
Faculty Mentor: Kevin Shaughnessy, Chemistry
Application of new water-soluble phosphine ligands in palladium catalyzed coupling reactions

Savannah Reach, Chemistry
Faculty Mentor: Silas Blackstock, Chemistry
Molecules That Dance

Shuwen Yue, Chemistry
Faculty Mentor: David Dixon, Chemistry
Computational Studies of Models of the Schrock and Grubbs Catalysts

Shuwen Yue, Chemistry
Faculty Mentor: Martin Bakker, Chemistry
Formation of Hierarchically Porous Carbons and Application as Catalyst Supports

Spencer Baer, Chemistry
Faculty Mentor: David Nikles, Chemistry
Synthesis of BiMn Nanoparticles for Use in High Energy Permanent Magnets

Stephanie Bevans, Chemistry
Faculty Mentor: Kevin Shaughnessy, Chemistry
Palladium-catalyzed cross-coupling reactions of malonate derivatives with aryl halides using DTBNpP as the activating ligand

Travis Atchley, Chemistry
Faculty Mentor: Silas Blackstock, Chemistry
Novel Donor-Acceptor Complexation and Cocrystalization

Group 4

John Brinkerhoff, Geological Sciences
Faculty Mentor: Ryan Ewing, Geological Sciences
Hyperspectral Logging of South Australian Stratigraphy during the Marinoan Glaciation
63
Malcolm McMillan, Geological Sciences
Faculty Mentor: Andrew Goodliffe, Geological Sciences
Evaluation of hydrocarbon source rock maturity and generation potential in the Black Warrior Basin beneath Gorgas power plant, Walker County, AL.

64
Sarah Bailey, Geological Sciences
Faculty Mentor: Harold Stowell, Geological Sciences
Geochronology and Geothermobarometry of the Misty Pluton in Fiordland, New Zealand

65
Nathan Holmes, Mathematics
Faculty Mentor: Drew Lewis, Mathematics
Polynomial Automorphisms

66
Yifan Liu, Mathematics
Faculty Mentor: Zhijian Wu, Mathematics
Predictive interest rate modeling with binomial distribution

67
Leighton Wilson, Computer-Based Honors Program
Faculty Mentor: Shan Zhao, Mathematics
New Algorithms for Biomolecular Solvation Analysis

68
Christopher Simpson, Aerospace Engineering & Mechanics
Faculty Mentor: Shanlin Pan, Chemistry
Examination of Chemical Properties of FLYASH With and Without CARBON NANOTUBES

69
Nicholas Kling, Aerospace Engineering & Mechanics
Faculty Mentor: Stephen Lovell, Computer Science
Javascript vs HTML

70
Andrew Jones, Chemical & Biological Engineering
Faculty Mentor: David Dixon, Chemistry
Computational Studies of the Properties of Biomass Intermediates

71
Brian Goodell, Chemical & Biological Engineering
Faculty Mentor: David Nikles, Chemistry
Bismuth Nanoparticle Synthesis for Application in High-Energy Magnets
Danielle Herubin, Chemical & Biological Engineering
Faculty Mentor: David Nikles, Chemistry

Bismuth-Manganese Nanoparticle Synthesis for Application in High-Energy Magnets

Jordyn Merriam, Chemical & Biological Engineering
Faculty Mentor: Laura Reed, Biological Sciences

Mediterranean Diet Modeled in Drosophila melanogaster

Joshua Moon, Chemical & Biological Engineering
Faculty Mentor: David Dixon, Chemistry

Reactions of CO2 and H2O Mediated by Metal Dications for the Geological Sequestration of CO2

Lindsey Cobb, Chemical & Biological Engineering
Faculty Mentor: David Nikles, Chemistry

Doxorubicin Encapsulation in Polymer Micelles Made from a Poly(ethylene glycol-b-caprolactone) Diblock Copolymer

Matthew Outlaw, Chemical & Biological Engineering
Faculty Mentor: David Dixon, Chemistry

Computational Studies of the Hydrolysis of (MO2)n (M=Ti, Zr, Hf) Nanoclusters

Max Mittenthal, Chemical & Biological Engineering
Faculty Mentor: Robin Rogers, Chemistry

Polyethylene glycol based ionic liquids to improve transdermal penetration of active pharmaceutical ingredients

Michael Raddatz, Chemical & Biological Engineering
Faculty Mentor: David Dixon, Chemistry

Gas-Phase Deprotonation of Acid-Substituted Tripeptides

Sean Perry, Metallurgical & Materials Engineering
Faculty Mentor: David Nikles, Chemistry

Synthesis of MnBi Nanoparticles Through a Two-Stage Nucleation Then Growth Mechanism

Matthew Honkanen, Biological Sciences
Faculty Mentor: Jeffrey Lozier, Biological Sciences

Analysis of Genetic Diversity Among North American Bumblebees
DIVISION OF SOCIAL SCIENCES

SCHEDULE OF ORAL PRESENTATIONS

Oral presentations in the Division of Social Sciences have been divided into two groups and will be held in Rast A and Rast B, Bryant Conference Center.

In each group, judges will select the top two oral presentations; other presentations may be selected for Honorable Mention. The students with the top two oral presentations in each group will then present to the judges from the other group. This second presentation will take place in the room in which the student initially presented. After the second round of presentations, the judges will select a first, second, third and fourth place winner.

Rast A Group 1

12:00
Eugene Randle, Anthropology
Faculty Mentor: Cameron H. Lacquement, Anthropology
Sunken Treasure in the Deep South: Assessing the Accuracy of Remote Sensing Technologies in Marine Archaeology

12:20
Danielle Crimmins, Criminal Justice
Faculty Mentor: Kathryn Seigfried-Spellar, Criminal Justice
Factors affecting Sexting among Undergraduate Students

12:40
Joshua Moncrief, Criminal Justice
Faculty Mentor: Mark Lanier, Criminal Justice
Attitudes of Correctional Officers in Tuscaloosa County

1:00
Ben Sigmon, Electrical & Computer Engineering
Faculty Mentor: Kenneth Lichstein, Psychology
The Web-Based Sleep Diary - A Website for the UA Sleep Research Project

1:20
Amelia Warriner, Health Sciences
Faculty Mentor: Hobson Bryan, Geography
Discrimination: Homosexuality in the South
Rast B  Group 2

12:00
Kasi Smart, History
Faculty Mentor: Ariane Prohaska, Criminal Justice
Social Inequality after the Tornado: A Critical Analysis of Rebuilding Efforts

12:20
Courtney Pixler, History
Faculty Mentor: Margaret Abruzzo, History
The Redefinition of Sin: Intellectual Conceptions of American Slavery from 1750-1830

12:40
Allison Haskins, Modern Languages & Classics
Lindsey Comas, Art & Art History
Ayana Gibson, Mathematics & Economics, Finance & Legal Studies
Taylor Lawhon, Anthropology
Faculty Mentor: Elizabeth Cooper, Anthropology
International Students' Perceptions of American Undergraduates

1:00
Sean Stalley, New College
Faculty Mentor: Thomas Sawalllis, New College
Darmok and Jalad at Tanagra

1:20
Jennifer Landry, Political Science
Faculty Mentor: Barbara Chotiner, Political Science
The Belarusian Language: Crisis in the Former Soviet Republic

1:40
Elyse Peters, New College
Faculty Mentor: Ellen Spears, New College
Expanding Environmental Justice: The Impact of Lisa P. Jackson Administration
DIVISION OF SOCIAL SCIENCES

LISTING OF POSTER PRESENTATIONS

In the Division of Social Sciences, the initial judging of the poster presentations will take place between 8:00 and 10:00 a.m. without the students being present. Beginning at 10:00 a.m., judges will meet with each student and discuss his or her presentation. From the poster presentations, a first, second and third place winner will be selected. Other presentations may be selected for Honorable Mention.

81
Joanna Robinson, Anthropology
Faculty Mentor: Matthew Wolfgram, Anthropology
*The 'Magic' of 'Diversity:' the Language of a Socially Charged School Board Debate*

82
Maura Stephens, Anthropology
Andrew Wills, Anthropology
Faculty Mentor: Elizabeth Cooper, Anthropology
*Why They Come: Factors Influencing Remote Versus Onsite Library Use*

83
Amanda Morel, Communicative Disorders
Shelby Francis, Communicative Disorders
Hillary Catlin, Communicative Disorders
Faculty Mentor: Anthony Buhr, Communicative Disorders
*The Relation between Stuttering and Speech Errors: A Longitudinal Study*

84
Amy Deeble, Communicative Disorders
Marie Tucker, Communicative Disorders
Faculty Mentor: Angela Barber, Communicative Disorders
*Roll Tide: Cultural Variation in Early Language*

85
Chelsea Howard, Communicative Disorders
Ashley Bishop, Communicative Disorders
Faculty Mentor: Anthony Buhr, Communicative Disorders
*Alabama Football: Fluency of Commentators*
86
Kayla Bates, Communicative Disorders
Samantha Erickson, Communicative Disorders
Olivia Killian, Communicative Disorders
Sara Beth Redmon, Communicative Disorders
Faculty Mentor: Anthony Buhr, Communicative Disorders
Investigation of Apparent Speech Errors in a Preschool-Age Child Who Stutters

87
Stephen Heacock, Communicative Disorders
Hayley Mitchell, Communicative Disorders
Sarah Ondocsin, Communicative Disorders
Kathleen West, Communicative Disorders
Faculty Mentor: Anthony Buhr, Communicative Disorders
The 2012 Presidential Debates: Does speech fluency influence debate outcome?

88
Emily Lakey, Political Science
Faculty Mentor: Daniel Levine, Political Science
Political Science/International Relations- Camp David Accords

89
Angelo Maxim, Psychology
Faculty Mentor: John Lochman, Psychology
The Effect of Ethnic Identity on Peer Preference

90
Brittney Rodriguez, Psychology
Faculty Mentor: Giyeon Kim, Psychology
Correlates of Serious Psychological Distress among Latino and Asian Immigrant Elders

91
Casey O'Quinn, Psychology
Dyan Demyan, Psychology
Faculty Mentor: Jeffrey Parker, Psychology
Winds of Change: Youth Perspectives on Community Recovery

92
Elizabeth Bistrong, Psychology
Heather Thomas, Psychology
Faculty Mentor: Sara Stromeyer, Psychology
The Role of Parent-rated Child Aggression in Mothers' Emotional and Parenting Behaviors
93

Erica Mathis, Psychology  
Faculty Mentor: Jason Scofield, Human Development & Family Studies  
*Children's Trust in Testimony and the Formation of Opinions*

94

Erinn Savage, Psychology  
Faculty Mentor: John Lochman, Psychology  
*Predictors of Change in Child Emotional and Behavioral Functioning Following a Natural Disaster*

95

Kristi Wisniewski, Psychology  
Faculty Mentor: Rebecca Allen, Psychology  
*Decision Making Capacity and Social Support among Community-Dwelling Older Adults*

96

Kylie Donnelly, Psychology  
Faculty Mentors: Martin Sellbom, Psychology  
*Examining Gender as Moderating the Association between Psychopathy and Substance Use*

97

Lauren Alvis, Psychology  
Faculty Mentor: Fran Conners, Psychology  
*Executive Function in Down Syndrome*

98

Rachel Jackson, Psychology  
Faculty Mentor: Natalie Dautovich, Psychology  
*Perceived Effects of Daytime Napping in Older Adults*

99

Tom Stolaski, New College  
Faculty Mentor: Matthew Wolgram, Anthropology  
*How Do Verbal Disputes Function to Reinforce and Maintain Social Relations?*

100

Savannah Senicz, Biological Sciences  
Faculty Mentor: Lisa Hooper, Educational Studies in Psychology, Research Method & Counseling  
*Relationships Between Religiosity, Depressive Symptoms, Well-being, and Gender in College Students*

101

Elizabeth Beale, New College  
Faculty Mentor: Julia Cherry, New College  
*Managing Greenhouse Gas Emissions on Croplands: An Ecological Approach to Agricultural Intensification*
PRESENTATION TIME AND LOCATION TO BE DETERMINED—SEE PROGRAM INSERT

SCHEDULE OF ORAL PRESENTATIONS

Rast A—Group 1

1:40
**Grace Hoover**, Chemical & Biological Engineering  
Faculty Mentor: Marisa Giggie, Community Health Sciences  
*Psychiatric Co-Morbidity in Collegiate Recovery Communities*

2:20
**Ivan Matchett**, African American Studies  
Faculty Mentor: Maha Marouan, African American Studies  
*Southern Black Culture vs. Media*

TBD
**Carmen Christensen**, Biological Sciences  
Faculty Mentor: Catherine Randall, Other  
*Alabama Academy of Honor*

LISTING OF POSTER PRESENTATIONS

TBD
**Chisom Ifediba**, Biological Sciences  
Faculty Mentor: John Wheat, Community & Rural Medicine  
*Assessment of the State of Diabetes Mellitus Treatment in Hale County, Alabama*

TBD
**Samuel Andersen**, Biological Sciences  
Faculty Mentor: Sherry Wedgeworth, University Medical Center  
*Bacterial Antibiotic Resistance in an Outpatient Medical Center*

TBD
**Paul Strickland**, Political Science  
Faculty Mentor: Glenn Davis, Institute for Rural Health Research  
*Analyzing the Effects of Sleep on the Performance of Emergency Medical Service Providers*
# CULVERHOUSE COLLEGE OF COMMERCE & BUSINESS ADMINISTRATION

## SCHEDULE OF ORAL PRESENTATIONS

### Logan Room

**1:00**

**Catherine Porter**, Economics, Finance & Legal Studies  
Faculty Mentor: Paula Cordero-Salas, Economics, Finance & Legal Studies  
_*Role of Organizations within REDD*_

**1:20**

**Parker Boleneus**, Information Systems, Statistics & Management Science  
**Yashika Johnson**, Information Systems, Statistics & Management Science  
**Will Hewson**, Information Systems, Statistics & Management Science  
Faculty Mentor: Uzma Raja, Information Systems, Statistics & Management Science  
_*March Madness Predictions*_

**1:40**

**Neil Chakraborti**, Economics, Finance & Legal Studies  
**Zhechen Yu**, Accounting  
Faculty Mentor: David Ford, Management & Marketing  
_*A Team Project at the Tuscaloosa Water & Sewer Business Office*_

**2:00**

**Brad Smith**, Information Systems, Statistics & Management Science  
**Jackie Farrow**, Information Systems, Statistics & Management Science  
Faculty Mentor: Uzma Raja, Information Systems, Statistics & Management Science  
_*Predictive Model of Fire Occurring in Seattle, Washington*_

**2:20**

**David Cifelli**, Economics, Finance & Legal Studies  
Faculty Mentor: Paula Cordero-Salas, Economics, Finance & Legal Studies  
_*The Economic History of Brazil: The Rise of an Industrial Powerhouse & the Previous Reign of Raw Goods Exportation*_

## LISTING OF POSTER PRESENTATIONS

**1**

**David Walston**, Economics, Finance & Legal Studies  
Faculty Mentor: Shane Underwood, Economics, Finance & Legal Studies  
_*Accuracy of SEC Filing Statements*_

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2
Samantha Gaffney, Management & Marketing
Faculty Mentor: Lenita Davis, Management & Marketing
The Branding of HIV/AIDS: The Effectiveness of World Aids Day as Evidence by Social Media

3
Elizabeth Roberts, Information Systems, Statistics, & Management Science
Faculty Mentor: Robin Buell, Information Systems, Statistics & Management Science
Generating an ALISE Statistical Report

4
Dylan Sandy, Economics, Finance & Legal Studies
Faculty Mentor: Stephen Black, Center for Ethics & Social Responsibility
Increasing the Effectiveness of SaveNow WinLater

5
Kyle Bourgeois, Information Systems, Statistics & Management Science
Chris Honeycutt, Information Systems, Statistics & Management Science
Michael Bartlett, Information Systems, Statistics & Management Science
Faculty Mentor: Uzma Raja, Information Systems, Statistics & Management Science
Student Performance Based on Resources Allocated

6
Will Johnston, Economics, Finance & Legal Studies
Faculty Mentor: Daniel Henderson, Economics, Finance & Legal Studies
Developing Course Packet for Econ 413: Economic Forecasting in R

7
Evan Brown, Information Systems, Statistics & Management Science
Ethan Miller, Information Systems, Statistics & Management Science
Brittany Summerlin, Information Systems, Statistics & Management Science
Faculty Mentor: Uzma Raja, Information Systems, Statistics & Management Science
Statistical Analysis of One Million Song Dataset

8
Stephen Allen, Economics, Finance & Legal Studies
Faculty Mentor: Matt Van Essen, Economics, Finance & Legal Studies
Stress Testing a Fundamental Prediction in Game Theory

9
Bradley Williams, Information Systems, Statistics & Management Science
Matthew Rieger, Information Systems, Statistics & Management Science
Faculty Mentor: Uzma Raja, Information Systems, Statistics & Management Science
Effects of Flight Cancellations & Diversions on Airline Ticket Sales
Stephanie Morris, Electrical & Computer Engineering  
Faculty Mentor: Rick Swatloski, AIME  
*Database Development to Facilitate Intellectual Property Evaluation*

Taylor Konkel, Information Systems, Statistics & Management Science  
Kyle Bourgeois, Information Systems, Statistics & Management Science  
Faculty Mentor: David Hale, Information Systems, Statistics & Management Science  
*8760, Inc. Realizing the Smart Grid*

**COLLEGE OF COMMUNICATION & INFORMATION SCIENCES**

**SCHEDULE OF ORAL PRESENTATIONS**

**Thames Room**

**1:00**  
Kristy Cherry-Randle, Journalism  
Faculty Mentor: Jennifer Greer, Journalism  
*Covering Conflict: How College Newspapers Framed Racial Incidents Involving African Americans, 1997-2009*

**1:20**  
Marc Torrence, Journalism  
Faculty Mentor: George Daniels, Journalism  
*Lessons Learned from Sports Blogging: A Southeastern Conference Study*

**1:40**  
Haley Flanagan, Advertising & Public Relations  
Julia Gardial, Advertising & Public Relations  
Jacquie McMahon, Advertising & Public Relations  
Kelsey Balzli, Advertising & Public Relations  
Benjamin Ladrillono, Advertising & Public Relations  
Faculty Mentor: Teri Henley, Advertising & Public Relations  
*I Can*” Anti-Bullying Campaign

**2:00**  
Cassady Keller, Advertising & Public Relations  
Brittany Carl, Advertising & Public Relations  
Cody Dearman, Advertising & Public Relations  
Sarah Helms, Advertising & Public Relations  
Faculty Mentor: Dylan McLemore, Journalism  
*Eighteen & Under: American & Chinese Journalistic Approaches to Children in the News*
2:20
Sarah Tooker, Communication Studies
Faculty Mentor: Meredith Bagley, Communication Studies
*A Health Critique of High Fashion: Reconfiguring Symbols in Trash Art*

**LISTING OF POSTER PRESENTATIONS**

12
Jocelyn Rozanski, Advertising & Public Relations
Faculty Mentor: Chip Brantley, Journalism
*Community Journalism Research Projects*

13
Morgan Casavant, Advertising & Public Relations
Tess Tarrillion, Communicative Disorders
Faculty Mentor: Teresa Golson, Art
*The History of Photography*

14
Sean Fleming, Telecommunications & Film
Joy Harris, Journalism
Faculty Mentor: Alana Baldwin, Telecommunications & Film
*The Art of an Effective PSA*

15
Katherine Lisciani, Communication Studies
Faculty Mentor: Meredith Bagley, Communication Studies
*What’s Love Got To Do With It: A Pentadic Analysis of Contemporary Marriage Equality Rhetoric*

16
Bethany Rogers, Telecommunications & Film
Morgan Kendrick, Telecommunications & Film
Faculty Mentor: Rick Dowling, Telecommunications & Film
*Making the Final Cut: A Guide to Nonlinear Editing*

17
Je-Young Oh, Advertising & Public Relations
Faculty Mentor: Yonghwan Kim, Telecommunications & Film
*Music Preferences Among Northeast Asian Students at UA: Motivations & Consequences*

18
Courtney Kaderbek, Telecommunications & Film
Faculty Mentor: Alan Blum, Family Medicine
*Tanning Bedlam: Can We Prevent a Melanoma Epidemic?*
Margaret O’Keeffe, Telecommunications & Film
Faculty Mentor: Meredith Bagley, Communication Studies
*Life’s A Pitch*

**COLLEGE OF EDUCATION**

**SCHEDULE OF ORAL PRESENTATIONS**

Nichols Room

**1:00**

**David Wilson**, Economics, Finance & Legal Studies
Faculty Mentor: Paula Cordero-Salas, Economics, Finance & Legal Studies
*The Alabama Accountability Act & Alabama’s Schools*

**1:20**

**Meagan Reif**, Educational Studies in Psychology, Research Method & Counseling
Faculty Mentor: Lisa Hooper, Educational Studies in Psychology, Research Method & Counseling
*The Relations Among Parentification, Race, Gender & Psychological Health*

**1:40**

**Lauren Huffman**, Psychology
Faculty Mentor: Lisa Hooper, Educational Studies in Psychology, Research Method & Counseling
*Associations Among Depressive Symptoms, Patient Involvement, Provider Cultural Competency and Treatment Nonadherence: Findings from an Exploratory Study Among University Student-Patients*

**LISTING OF POSTER PRESENTATIONS**

**20**

**Jacob Johnson**, Special Education & Multiple Abilities
Faculty Mentor: Tracy Weston, Curriculum & Instruction
*Early Education Mathematics: A Study of Teaching Strategies*

**21**

**Marshall Huynh**, Special Education & Multiple Abilities
Faculty Mentor: Kevin Besnoy, Special Education & Multiple Abilities
*The Underrepresentation of African American Students in Gifted Placement*

**22**

**Chris Duke**, Kinesiology
Faculty Mentor: Gary Hodges, Kinesiology
*Cutaneous Vasconstriction at the Onset of Exercise*
23
David Phelps, Civil, Construction & Environmental Engineering
Faculty Mentor: John Dantzler, Curriculum & Instruction
Perception of the K-12 Teaching Profession from High-Achieving College Students

24
Lena Oshinskie, English
Faculty Mentor: Kevin Besnoy, Special Education & Multiple Abilities
The Effects of Technology & Social Media on the Educational Environmental

25
Emily Carnes, Psychology
Faculty Mentor: Elizabeth Wilson, Curriculum & Instruction
Preparedness for College: Were High School Classes Enough?

26
Amanda Sams, Journalism
Faculty Mentor: Alexander Parks, Curriculum & Instruction
Uncovering the Common Personality Identifiers of Teachers Who Have a Long-Lasting Positive or Negative Influence on Their Students

27
Jordin Bonds, Kinesiology
Faculty Mentor: Jen Nikleson, Health Sciences
Weight, Nutrition & Physical Activity of UA Students

27A
Davis Jackson, College of Education
Faculty Mentor: Liza Wilson
Teacher Education Professional Preparedness Study
LISTING OF POSTER PRESENTATIONS

28
Chris Chockley, Computer Science
Faculty Mentor: Pieter Visscher, Physics & Astronomy
3D Simulations of Micro-Magnetic Fields

29
Brent LaForte, Aerospace Engineering & Mechanics
Faculty Mentor: Amy Lang, Aerospace Engineering & Mechanics
Low Reynolds Number Drag Alteration Inspired by Butterfly Scales

30
Holly Judge, Mechanical Engineering
Faculty Mentor: Marcus Ashford, Mechanical Engineering
Measuring Volatility of Motor Fuel

31
Saahil Agrawal, Mechanical Engineering
Faculty Mentor: Clark Midkiff, Mechanical Engineering
High-Speed Photographs of Two-Phase Flow Inside a Fuel Injector

32
Brian Carr, Chemical & Biological Engineering
Dylan Nichols, Chemical & Biological Engineering
Faculty Mentor: Alan Lane, Chemical & Biological Engineering
Effects of Electrolytic Solution on Cyclic Voltammetry

33
Shanley Carlton, Mechanical Engineering
Faculty Mentor: Marcus Ashford, Mechanical Engineering
Diesel Fumigation to Reduce Ignition Delay & Rapid Pressure Rise

34
Hayden Gunter, Civil, Construction & Environmental Engineering
Faculty Mentor: Steven Jones, Civil, Construction & Environmental Engineering
Bus Rapid Transit Potential for Major Traffic Corridors Coming into Downtown Birmingham
35

Brendan Mangan, Aerospace Engineering & Mechanics
Christopher Simpson, Aerospace Engineering & Mechanics
Faculty Mentor: Vinu Unnikrishnan, Aerospace Engineering & Mechanics
Mechanical Properties of Multi-Wall Carbon Nanotubes Using Molecular Dynamics Simulations

36

Matthew Chapin, Aerospace Engineering & Mechanics
Faculty Mentor: Qi Hao, Electrical & Computer Engineering
Visualization for Indoor GPS on Android Platform

37

Randy Warren, Mechanical Engineering
Faculty Mentor: John Baker, Aerospace Engineering & Mechanics
ALSAT Mission Planning (AMP) Toolkit

38

Nick Johnson, Electrical & Computer Engineering
Faculty Mentor: Patrick Kung, Electrical & Computer Engineering
Photon Sensors Based on Semiconductors & Nanostructures

39

Zack Morris, Mechanical Engineering
Faculty Mentor: Brian Fisher, Mechanical Engineering
Characterization of Soot Generated in a Diffusion Flame

40

Emily Liang, Biological Sciences
Faculty Mentor: Jeff Gray, Computer Science
The Adjustable Grid: A Grid-Based Cursor Control Solution Using Speech Recognition

41

Jesseca Paulsen, Chemical & Biological Engineering
Faculty Mentor: Christopher Brazel, Chemical & Biological Engineering
Materials for Cancer Hyperthermia: Magnetic Heating of Maghemite/Polycaprolactone Nanocomposites

42

Charles Phillips, Civil, Construction & Environmental Engineering
Faculty Mentor: Yingyan Lou, Civil, Construction & Environmental Engineering
Evaluating the Operational Efficiency of the University of Alabama 348-RIDE On-Demand Transit System
43
James Koch, Mechanical Engineering
Faculty Mentor: Marcus Ashford, Mechanical Engineering
Controlling Mixed-Mode Combustion through VVT

44
Matthew Rodriquez, Computer Science
Faculty Mentor: Qi Hao, Electrical & Computer Engineering
Programming Android Mobile Devices for Interfacing Intelligent Sensors

45
Elizabeth Haley, Chemical & Biological Engineering
Faculty Mentor: Yonghyun Kim, Chemical & Biological Engineering
Degradation of Basic Fibroblast Growth factor in Cell Culture

46
John Roveda, Chemical & Biological Engineering
Faculty Mentor: Heath Turner, Chemical & Biological Engineering
The Chemical Engineering App: Engineering in the 21st Century

47
William Cox, Chemical & Biological Engineering
Faculty Mentor: Ajay Agrawal, Mechanical Engineering
A Novel Fuel-Flexible Combustor for Industrial Applications

48
Claire Harper, Mechanical Engineering
Faculty Mentor: Marcus Ashford, Mechanical Engineering
Characterization of Exotic Alternative Fuels

49
Alan Hawkins, Aerospace Engineering & Mechanics
Faculty Mentor: Anwarul Haque, Aerospace Engineering & Mechanics
Processing & Evaluation of Thermal Conductivity of Graphene/Epoxy Nanocomposites

50
Andrew Parks, Civil, Construction & Environmental Engineering
Faculty Mentor: David Grau, Civil, Construction & Environmental Engineering
Separating Structures from Noise in Scans Taken using 3D LIDAR Technology

51
John Skelton, Mechanical Engineering
Faculty Mentor: Xiangrong Shen, Mechanical Engineering
Design of a Powered Lower-Extremity Orthosis for Sit-to-Stand & Ambulation Assistance
52
Christian Brewton, Computer Science
Lloyd Wyse, Management & Marketing
Faculty Mentor: Stephen Lovell, Computer Science
A Timeline of Programming

53
Paul McKelvey, Civil, Construction & Environmental Engineering
Faculty Mentor: Yingyan Lou, Civil, Construction & Environmental Engineering
Bridge Rail Safety Analysis

54
Matt Weider, Civil, Construction & Environmental Engineering
Faculty Mentor: Stephen Lovell, Computer Science
The Coping Power Program Application

COLLEGE OF HUMAN ENVIRONMENTAL SCIENCES

LISTING OF POSTER PRESENTATIONS

55
Caroline Jones, Human Development & Family Studies
Heather Thomas, Psychology
Faculty Mentor: Sherwood Burns-Nader, Human Development & Family Studies
How Do Toys Influence Children’s Play?

56
Elizabeth Brandley, Health Services
Faculty Mentor: Jen Nickelson, Health Services
Sexual Health & Contraception

57
Ansley Johnson, Human Nutrition & Hospitality Management
Amelia Foster, Human Nutrition & Hospitality Management
Bentley Bruhn, Human Nutrition & Hospitality Management
Judson Williams, Human Nutrition & Hospitality Management
Faculty Mentor: Lori Greene, Human Nutrition & Hospitality Management
Older Adults & Lack of Fluid Intake: A Review
58
Sarah Tharani, Health Sciences
Ashley Winn, Health Sciences
Adam Pounds, Health Sciences
Kristel Vourna, Health Sciences
Calvin Russell, Health Sciences
Faculty Mentor: Melanie Tucker, Community & Rural Medicine
The Impact of Academic Stress on College Campuses

59
Asia Stephens, Human Development & Family Studies
Faculty Mentor: Tricia Witte, Human Development & Family Studies
The Influence of Social Support on Stress-Related Gastrointestinal Symptoms

60
Emily Sharman, Health Sciences
Alexis Stewart, Health Sciences
Chelsea Lipin, Health Sciences
Faculty Mentor: Jen Nickelson, Health Sciences
College Students & Alcohol, Tobacco & Other Drugs

61
Elizabeth Crowe, Human Nutrition & Hospitality Management
Kelli Mitchell, Human Nutrition & Hospitality Management
Monica Jackson, Human Nutrition & Hospitality Management
Faculty Mentor: Lori Greene, Human Nutrition & Hospitality Management
Prealbumin: An Adequate Indicator of Malnutrition?

62
Kelsey Schlichter, Human Nutrition & Hospitality Management
Sarah Dallam, Human Nutrition & Hospitality Management
Lauren Silvio, Human Nutrition & Hospitality Management
Morgan Patterson, Human Nutrition & Hospitality Management
Faculty Mentor: Lori Greene, Human Nutrition & Hospitality Management
Older Adults in Omega 3 Supplementation: A Review

63
Elizabeth Murray, Human Nutrition & Hospitality Management
Faculty Mentor: Kristi Crowe, Human Nutrition & Hospitality Management
Deconstructing a Fruit Serving: Comparing the Phytochemical Content of Solid Versus Beverage Forms of a Fruit Serving Among Select Fruits
Lauren Euler, Human Nutrition & Hospitality Management  
Brooke Sillay, Human Nutrition & Hospitality Management  
Faculty Mentor: Lori Greene, Human Nutrition & Hospitality Management  
Omega-3 Fatty Acid Supplementation, a Prevention & Treatment for Sarcopenia: A Review

Shayna Bourassa, Human Nutrition & Hospitality Management  
Suzanna Niehoff, Human Nutrition & Hospitality Management  
Kelly Simmons, Human Nutrition & Hospitality Management  
Elizabeth Murray, Human Nutrition & Hospitality Management  
Faculty Mentor: Lori Greene, Human Nutrition & Hospitality Management  
The Effects of Weight Loss on Bone Mineral Density in Older Adults: A Review

Kimberly Dismuke, Clothing, Textiles & Interior Design  
Faculty Mentor: Marcy Koontz, Clothing, Textiles & Interior Design  
American Retailers: Industry Icons/Subsidizers of Culture

Kiara Foxhall, Clothing, Textiles & Interior Design  
Faculty Mentor: Stephanie Sickler, Clothing, Textiles & Interior Design  
Built For Life: A Framework for Implementing Universal Design Principles in a New Urbanist Community

Mellonee Johnson, Human Nutrition & Hospitality Management  
Colleen Dawley, Human Nutrition & Hospitality Management  
Dayle Van Ess, Human Nutrition & Hospitality Management  
Faculty Mentor: Lori Greene, Human Nutrition & Hospitality Management  
The Importance of Recognizing Dehydration & Associated Risk Factors in Older Adults: A Review

Michael Arnold, Health Sciences  
Faculty Mentor: Lori Turner, Health Sciences  
Promote Awareness & Intervention of Educational Barriers that Distress Transitioning Veteran Students with PTSD: Application of Social Support Concepts

Michael Arnold, Health Sciences  
MacKenzie Bethune, Health Sciences  
Jalston Fowler, Health Sciences  
Faculty Mentor: Melanie Tucker, Community & Rural Medicine  
Distortion & Connotations of Weight Perceptions among Traditional College Students
Fatimah Alsadah, Clothing, Textiles & Interior Design
Faculty Mentor: Kristin Maki, Clothing, Textiles & Interior Design

Children’s Learning Center

Brooke Evans, Clothing, Textiles & Interior Design
Faculty Mentor: Stephanie Sickler, Clothing, Textiles & Interior Design

Collaborative Spaces: A New Take on the Living-Learning Community (An Interior Design Major’s Living-Learning Community)

CAPSTONE COLLEGE OF NURSING

LISTING OF POSTER PRESENTATIONS

Chelsea Costley, Nursing
Brittany Covington, Nursing
Colbie Davis, Nursing
Reneka Davis, Nursing
Tess Davis, Nursing
Sarah Day, Nursing
Katie Delinski, Nursing

Faculty Mentor: Delta Pate, Nursing
Medication Safety

Kristen Calos, Nursing
Amanda Carden, Nursing
Aubry Clayton, Nursing
Curtis Clements, Nursing
Elenta Coffey, Nursing
Jamie Camp, Nursing
Veronica DiChiara, Nursing
Laci Colburn, Nursing

Faculty Mentor: Sandra Ambrose, Nursing
Do you Scrub the Hub? Reducing Central Line Associated Bloodstream Infections
Caleb Gray, Nursing
Haleigh Hollifield, Nursing
Elizabeth Jones, Nursing
Hayley Jones, Nursing
Kara Jones, Nursing
Grant Kelly, Nursing
Lauren Kennedy, Nursing
Laura Jones, Nursing

Faculty Mentor: Stephanie Ragland, Nursing

Silverton Dressing Protocol

Mary Margaret Braswell, Nursing
Kelly Brasfield, Nursing
Michael Ammons, Nursing
Kate Barth, Nursing
Abigail Begovich, Nursing
Caleigh Bolt, Nursing
Brittany Calloway, Nursing

Faculty Mentor: Clara Owings, Nursing

What Are You Carrying in your Pocket?

Ashley Peel Miller, Nursing
Brianna Miller, Nursing
Zach Morgan, Nursing
Heather Mullens, Nursing
Maggie Pitts, Nursing
Ashley Polk, Nursing
Sarah Nierman, Nursing
Jessica Penunuri, Nursing

Faculty Mentor: Ann Graves, Nursing

Personal Items Worn by Nurses & Related Contamination
78
Kendra Lee, Nursing
Liu Qiaorong, Nursing
Marissa Marshall, Nursing
Molly McLaughlin, Nursing
Brittany Meeks, Nursing
Julia Meneghetti, Nursing
Shelby McNutt, Nursing
Savannah Lee, Nursing
Faculty Mentor: Regina Bentley, Nursing
Endotracheal Suctioning: Continuous vs. Intermittent

79
Susanna Payton, Nursing
Faculty Mentor: Paige Johnson, Nursing
Nursing Death: Lessons from a Hospice Internship

80
Meghan Gordy, Nursing
Victoria Godber, Nursing
Kaitlin Garrard, Nursing
Logan Gilman, Nursing
Grace Hagedorn, Nursing
Julia Harris, Nursing
Faculty Mentor: Leslie Cole, Nursing
The Utilization of Normal Saline with Suctioning

81
Emily Williamson, Nursing
Faculty Mentor: Angela Collins, Nursing
Disparity in Treatment of Pain in Patients with Acute Neurological Injury

82
Patrick Joswick, Nursing
Faculty Mentor: Sara Kaylor, Nursing
An Emphasis of Men in the Nursing Practice
LISTING OF POSTER PRESENTATIONS

83
Tawanna Samuel, Social Work
Faculty Mentor: Javonda Williams, Social Work
The Effect of President Barack Obama Presidency on Academic Achievement of African American Students

84
Carolyn Williams, Psychology
Bridget Jackson, Psychology
Faculty Mentor: Javonda Williams, Social Work
The Effects of Homelessness on Middle Age Adults

85
Heather Bryant, Human Development & Family Studies
Margaret Hanson, Human Development & Family Studies
Faculty Mentor: Javonda Williams, Social Work
Does Being Diagnosed with a Chronic Illness Impact a Person’s Spirituality?

86
Delana Harbison, Social Work
Faculty Mentor: Javunda Williams, Social Work
Gardening as Intervention for at Risk Teenagers

87
Meghan Wilgus, Information Systems, Statistics & Management Science
Faculty Mentor: Christopher Sims, Computer Science
Survey on Interaction with My.Alabama and MyDHR UX2014 Design
EMERGING SCHOLARS

DIVISION OF SCIENCE, MATHEMATICS & ENGINEERING

SCHEDULE OF ORAL PRESENTATIONS

Smith Board Room

1:00
Richard Seeber, Biological Sciences
Faculty Mentor: Ryan Earley, Biological Sciences
*Gender Inequality: Sex Differences in Metabolic Rate in the Mangrove Rivulus, Kryptolebias marmoratus*

1:20
Luckie Milad, Biological Sciences
Faculty Mentor: Jane Rasco, Biological Sciences
*The Effects of Chromium on Blood Glucose Levels in CD-1 Mice Maintained on Restricted or Ad Libitum Diets*

1:40
Ruth Bishop, Biological Sciences
Faculty Mentor: Laura Reed, Biological Sciences
*The Roles of Pupal Adhesion Genes in Regulating Drosophila melanogaster Pupal Weight*

2:00
Katie Turgeon, Chemistry
Faculty Mentor: Laura Busenlehner, Chemistry
*Proteins Interactions in the Neurodegenerative Disease Friedreich's Ataxia*

2:20
Matt Kieffer, Biological Sciences
Faculty Mentor: Laura Reed, Biological Sciences
*The Effects of Diet on Pupal and Larval Survival Rate and Development Time in Drosophila melanogaster*

DIVISION OF SCIENCE, MATHEMATICS & ENGINEERING

LISTING OF POSTER PRESENTATIONS

ES1
Jeromey Beaman, Biological Sciences
Faculty Mentor: Shadi Martin, Social Work
*Qualitative Research with Older African American Women About Treatment for Breast Cancer Recruitment and Interviewing Challenges*
ES2
Stephanie Craig, Social Work
Faculty Mentor: Debra Nelson-Gardell, Social Work
Mapping the Development of an Intervention: Resiliency and Child Sexual Victimization

ES3
Lin Kabachia, History
Faculty Mentor: Avani Shah, Social Work
Pain Management in Older Adults

ES4
Taylor Jones, Kinesiology
Faculty Mentor: Jonathan Wingo, Kinesiology
Effect of Acute Cooling on Aerobic Capacity During Heat Stress

ES5
Caroline Spillane, Theatre & Dance
Faculty Mentor: Gary Hodges, Kinesiology
A Single Bout of Exercise Enhances Microvascular Endothelial Function

ES6
Elizabeth Studdard, Human Environmental Sciences
Faculty Mentor: Gary Hodges, Kinesiology
Does Neuropeptide Y affect blood flow in women?

ES7
Kyle Burns, Metallurgical & Materials Engineering
Faculty Mentor: Nima Mahmoodi, Mechanical Engineering
Flapping Wing Inspired Piezoelectric Energy Harvester

ES8
Caleb Felker, Metallurgical & Materials Engineering
Faculty Mentor: Nitin Chopra, Metallurgical & Materials Engineering
Designed CuO-Pt-SiO2-CeO2 Hybrid Nanowires

ES9
Mitchell Spryn, Electrical & Computer Engineering
Faculty Mentor: Bruce Kim, Electrical & Computer Engineering
Development of Wireless Platform for Advanced Nanosensor Technology

ES10
Michael Maynard, Mechanical Engineering
Faculty Mentor: Brian Fisher, Mechanical Engineering
Development and Solid Modeling of Spray Test Chamber
<table>
<thead>
<tr>
<th>ID</th>
<th>Name</th>
<th>Department</th>
<th>Faculty Mentor</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES11</td>
<td>David Gronstal</td>
<td>Aerospace Engineering &amp; Mechanics</td>
<td>James Hubner, Aerospace Engineering &amp; Mechanics</td>
<td>The Effects of Vibration on Membranous Wings</td>
</tr>
<tr>
<td>ES12</td>
<td>Grace Cunningham</td>
<td>Kinesiology</td>
<td>Monica Anderson, Electrical &amp; Computer Engineering</td>
<td>Using AL5D Robotic Arm and iRobot Create to Maneuver Techniques in the Aid of Disadvantaged Citizens Stage 1: Customized Grippers</td>
</tr>
<tr>
<td>ES13</td>
<td>Kathryn McCoy</td>
<td>Civil, Construction &amp; Environmental Engineering</td>
<td>Derek Williamson, Civil, Construction &amp; Environmental Engineering</td>
<td>Is Basins Software Adequate for Investigating In-Land Flooding Potential</td>
</tr>
<tr>
<td>ES14</td>
<td>Blair Butler, Morgan Hendon</td>
<td>Civil, Construction &amp; Environmental Engineering</td>
<td>Glenn Tootle, Civil, Construction and Environmental Engineering</td>
<td>Wind River Range Glacier Area</td>
</tr>
<tr>
<td>ES15</td>
<td>Angela Griffin</td>
<td>Computer Science</td>
<td>Marcus Brown, Computer Science</td>
<td>Exploration of the Fandom's Response to a New Game Set in a Visual Novel Space</td>
</tr>
<tr>
<td>ES16</td>
<td>Trey Harrison</td>
<td>Electrical &amp; Computer Engineering</td>
<td>Tim Haskew, Electrical &amp; Computer Engineering</td>
<td>Multi-Functionality of Absolute Encoders</td>
</tr>
<tr>
<td>ES17</td>
<td>Spenser Hayward</td>
<td>Chemical &amp; Biological Engineering</td>
<td>Jason Bara, Chemical &amp; Biological Engineering</td>
<td>Solvation Characteristics of Polymerized Imidazolium-Based Ionic Liquids</td>
</tr>
<tr>
<td>ES18</td>
<td>Christopher Johnson</td>
<td>Electrical &amp; Computer Engineering</td>
<td>Jaber Abu-Qahouq, Electrical &amp; Computer Engineering</td>
<td>Perturb and Observe Maximum Power Point Tracking</td>
</tr>
</tbody>
</table>
ES19
Daniel Brown, Mechanical Engineering
Faculty Mentor: Ajay Agrawal, Mechanical Engineering
Observation of Effects of Porous Inert Media on a Nonreactive Flow Field Using Particle Image Velocimetry

ES20
Robert Ramsey, Aerospace Engineering & Mechanics
Faculty Mentor: Weihua Su, Aerospace Engineering & Mechanics
Automobile Exhaust System

ES21
Amira Aglan, Chemical & Biological Engineering
Lingling Guo, Chemical & Biological Engineering
Faculty Mentor: Hung-Ta Wang, Chemical & Biological Engineering
Selective Patterning of Bi2Te3 Nanoplatelets via Microcontact Printing

ES22
Johnathan Snyder, Computer Science
Faculty Mentor: Jeff Gray, Computer Science
Analysis of Mutation Testing Tools

ES23
Jennifer Lester, Civil, Construction & Environmental Engineering
Faculty Mentor: Jialai Wang, Civil, Construction & Environmental Engineering
A Novel Green Binder Inspired by Chinese Concrete Technology

ES24
Cory Dennis, Civil, Construction & Environmental Engineering
Faculty Mentor: Pauline Johnson, Civil, Construction & Environmental Engineering
Waste-Water in Blackbelt Alabama

ES25
Kelsey Terrill, Chemical & Biological Engineering
Faculty Mentor: Jason Bara, Chemical & Biological Engineering
Functionalized Imidazole-based Copolymer Membranes for Facilitated CO2 Transport

ES26
Carson Haack, Aerospace Engineering & Mechanics
Faculty Mentor: Amy Lang, Aerospace Engineering & Mechanics
Generating a Vortex Ring in Viscous Silicone Oil
ES27
Joshua Martinez, Electrical & Computer Engineering
Faculty Mentor: Seongsin Kim, Electrical & Computer Engineering
Femtosecond Micromachining of Opaque Solids

ES28
Jonathan Bell, Electrical & Computer Engineering
Faculty Mentor: Jaber Abu-Quhouq, Electrical & Computer Engineering
Adaptive Wireless Power Transfer System

ES29
Craig LeNoir, Electrical & Computer Engineering
Faculty Mentor: Tim Haskew, Electrical & Computer Engineering
Electro-Mechanical Systems Laboratory

ES30
Desiree Kiss, Aerospace Engineering & Mechanics
Faculty Mentor: Amy Lang, Aerospace Engineering & Mechanics
The Effects of Grooved Surfaces on Boundary Layer Separation around a Cylinder

ES31
Jacob Harbin, Chemical & Biological Engineering
Faculty Mentor: Jason Bara, Chemical & Biological Engineering
The Large Scale Production of Imidazolium-Based Ionic Liquids

ES32
Jacob Wildin, Computer Science
Faculty Mentor: Edward Sazonov, Computer Science
The Diet Diary: Improvements made to Uploading

ES33
Kaitlyn Lyle, Electrical & Computer Engineering
Faculty Mentor: Patrick Kung, Electrical & Computer Engineering
Effects of Radiation on GaN HEMTs

ES34
Holly Poole, Civil, Construction & Environmental Engineering
Faculty Mentor: Pauline Johnson, Civil, Construction & Environmental Engineering
Water Infrastructure Sustainability and Health in Alabama’s Black Belt

ES35
Rachel Henderson, Aerospace Engineering & Mechanics
Faculty Mentor: Semih Olcmen, Aerospace Engineering & Mechanics
Schlieren Technique
ES36
Landen Ryder, Electrical & Computer Engineering
Faculty Mentor: Patrick Kung, Electrical & Computer Engineering

Semiconductor Photon Detectors

ES37
Zach Jarrell, Electrical & Computer Engineering
Faculty Mentor: Qi Hao, Electrical & Computer Engineering

Music: A Physical Experience

ES38
Thomas Stringfellow, Mechanical Engineering
Faculty Mentor: Marcus Ashford, Mechanical Engineering

Alabama Variable Engine Cycle Simulator

ES39
Kevin Igoe, Mechanical Engineering
Faculty Mentor: Paulius Puzinauskas, Mechanical Engineering

Analysis of Tumble and Its Effects on EGR Tolerance for a Gasoline Engine Running at High Loads with a Modified Intake Port

ES40
Andriana Mickens, Civil, Construction & Environmental Engineering
Faculty Mentor: Steven Jones, Civil, Construction & Environmental Engineering

Localized Sustainability Score for Screening Urban Transport Projects in Developing Countries

ES41
Josh Pepperman, Computer Science
Faculty Mentor: Jeff Gray, Computer Science

Programming by Voice

ES42
Craig Burns, Chemical & Biological Engineering
Faculty Mentor: Pauline Johnson, Civil, Construction & Environmental Engineering

Water Quality in the Alabama Black Belt

ES43
Conner Lines, Computer Science
Faculty Mentor: Jingyuan Zhang, Computer Science

Zippit: An Interaction Technique for Communication Between Tablets

ES44
Cody Caver, Mechanical Engineering
Faculty Mentor: Keith Williams, Mechanical Engineering

Controlling a Robotic Arm Using a Microcontroller
ES45
Megan Johnston, Chemistry
Faculty Mentor: Kevin Shaughnessy, Chemistry
Development of an Aqueous-Phase C-H Arylation Reaction

ES46
Christian Shannon, Chemical & Biological Engineering
Faculty Mentor: Patrick Frantom, Chemistry
Observing Substrate Specificity Using Kinetic Studies of Isopropylmalate Synthase Within the Archae Methanococcus Jannashii

ES47
Danelle Pecht, Chemistry
Faculty Mentor: Robin Rogers, Chemistry
How can chemistry determine the former uses of Mississippian Culture pottery artifacts?

ES48
Matthew Jeans, Biological Sciences
Faculty Mentor: Carol Duffy, Biological Sciences
Cloning Strategies Designed to Generate Coiled-coil Fusion Proteins for Attachment to Iron Oxide Magnetic Nanoparticles

ES49
Casey Dalton, Chemistry
Faculty Mentor: Shanlin Pan, Chemistry
Monitoring Single Particle Electrochemistry via Dark Field Microscopy

ES50
Sydney Powers, Biological Sciences
Maggie Holland, Psychology
Maddie Butz, Psychology
Faculty Mentor: Phillip Gable, Psychology
A Reward in the Hand is Worth More than a Potential Reward: Assessment of Reward Sensitivity Using the Post-Auricular Reflex

ES51
Ryan Colaianni, Biological Sciences
Hunter Dean, Biological Sciences
Faculty Mentor: Janis O’Donnell, Biological Sciences
Low Doses of Iron Oxide Nanoparticles Have a Detrimental Effect on Reproduction and Development

ES52
Allison Dougherty, Chemical & Biological Engineering
Olivia Roe, Chemistry
Faculty Mentor: Stephen Woski, Chemistry
Synthesis of an Electric Charge Transport Structure
ES53
Grace Knowles, Biological Sciences
Faculty Mentor: John Yoder, Biological Sciences
The Role of Shavenbaby in Trichome Production in Drosophila Melanogaster

ES54
Austin Parrish, Biological Sciences
Faculty Mentor: Daniel Goebbert, Chemistry
Development and Characterization of a Glow Discharge Ionization-Reaction Store

ES55
Haley Burhans, Chemistry
Faculty Mentor: Timothy Snowden, Chemistry
Construction of Chiral Polysubstituted Tetrahydropran Rings Featuring a Novel Jocic-Type Reaction

ES56
Morgan Brasfield, Biological Sciences
Faculty Mentor: John Yoder, Biological Sciences
The Role of Ultrabithorax in Adult Spiracle Development

ES57
Davis Diamond, Biological Sciences
John Wyatt, Biological Sciences
Faculty Mentor: Stephen Secor, Biological Sciences
Is Digestion Cheaper if Bigger?

ES58
Samantha Hill, Biological Sciences
Faculty Mentor: Jane Rasco, Biological Sciences
The Effects of Nanoparticles on CS-1 Mouse Fertility Examined using TEM

ES59
Marshall Everett, Aerospace Engineering & Mechanics
Faculty Mentor: Dean Townsley, Physics & Astronomy
Verification of Numerical Simulation of Landau-Darrieus Unstable Reaction Fronts

ES60
Amie Lemley, Biological Sciences
Faculty Mentor: Jane Rasco, Biological Sciences
Does Response Study for the Potential Adverse Effect of Positive and Negative Iron Oxide Nanoparticles on the Offspring of CS-1 Mice
ES61
Elizabeth Ray, Biological Sciences
Faculty Mentor: Ryan Earley, Biological Sciences
Reproductive Responses of Hermaphrodites and Males to Synthetic Estrogen Exposure

ES62
Brittany Allums, Biological Sciences
Conner Smith, Mechanical Engineering
Faculty Mentor: Anthony Arduengo, Chemistry
Chemical Hydrogen Storage Through the Use of Carbene-Based Frustrated Lewis Pairs

ES63
Abigail Shelton, Biological Sciences
Faculty Mentor: Ryan Earley, Biological Sciences
Temperature-Dependent Sex Determination in the Mangrove Rivulus Fish

ES64
John Bentley, Biological Sciences
Faculty Mentor: David Nikles, Chemistry
Polymeric Vesicles for Use in a Drug Delivery System

ES65
Maggie Goodman, Chemical & Biological Engineering
Faculty Mentor: Julia Cherry, Biological Sciences
Comparison of Foliar Chemistry of Wetland Plant Communities in Different Stage in Succession

ES66
Christopher Gilmartin, Biological Sciences
Faculty Mentor: Guy Caldwell, Biological Sciences
Analysis of an Alzheimer's Disease Model

ES67
Sarah Cox, Biological Sciences
Taylor Colon, Biological Sciences
Rowdy Allen, Biological Sciences
Faculty Mentor: Katrina Ramonell, Biological Sciences
The Transportation and Accumulation of Iron Oxide Nanoparticles in Arabidopsis Plants

ES68
Jelani Grace, Biological Sciences
Faculty Mentor: Ryan Earley, Biological Sciences
Parasite Manipulation of Host Personality in California Killfish
ES69
Ryan Walsh, Biological Sciences
Faculty Mentor: Ryan Earley, Biological Sciences
*Effects of Salinity on the Development of Complex Phenotypes in Mangrove Rivulus Fish*

ES70
Alison Marsh, Physics & Astronomy
Faculty Mentor: Conor Henderson, Physics & Astronomy
*Searching for Technicolor with the CMS Experiment at The Large Hadron Collider*

ES71
Alison Adams, Biological Sciences
Faculty Mentor: Laura Reed, Biological Sciences
*The Study of Genetic Variation in Drosophila Melanogaster Energy Allocation for Reproduction*

ES72
Emily Bloomquist, Chemical & Biological Engineering
Faculty Mentor: Robin Rogers, Chemistry
*Effect of Graphene vs Graphite on the Electrochemical Properties of Azolate Based ILs*

ES73
Elizabeth Timm, Biological Sciences
Faculty Mentor: Juan Lopez-Bautista, Biological Sciences
*Laurencia natalensis Kylin (Ceramiales): A New Record for the Atlantic Ocean*

ES74
Mirza Beg, Chemical & Biological Engineering
Faculty Mentor: David Nikles, Chemistry
*Co-Crystals of 10-Methylphenthiazine and 1,3-Dinitrobenzene Implications for Optical Sensing of TNT-based Explosives*

ES75
Jonathan Burrows, Biological Sciences
Faculty Mentor: Ryan Earley, Biological Sciences
*Choosing a Caretaker: Alloparental Dynamics in Fish*

ES76
Duncan Murdock, Biological Sciences
Faculty Mentor: Jennifer Howeth, Biological Sciences
*Relative Importance of Local and Regional Processes in Structuring Zooplankton Communities in a Wetland Metaecosystem*

ES77
Christopher Popovich, Computer Science
Faculty Mentor: Lawrence Roberts, Mathematics
*Computing the Alexander Ideals of Links*
ES78
Alec Maglione, Biological Sciences
Yi Chen, Biological Sciences
Faculty Mentor: Janis O'Donnell, Biological Sciences
High-throughout Drug Screen using Drosophila Melanogaster Drug Model

ES79
Abbey Tadros, Chemistry
Faculty Mentor: John Vincent, Chemistry
Synthesis and Characterization of Cr3(propionate)

ES80
Melinda Mann, Geography
Faculty Mentor: Luoheng Han, Geography
Spectral Reflectance of Evergreen Tree Species in Tuscaloosa County, Alabama

ES81
Jason Nance, Mathematics
Faculty Mentor: Jason Parton, Information Systems, Statistics & Management Sciences
The Effect of Sleep Cycle Interruption of EMS Personnel Skill Performance

ES82
Wesley Taylor, Chemical & Biological Engineering
Faculty Mentor: Anthony Arduengo, Chemistry
The Use of Non-oxidizing, Organic Dyes as Photo-voltaic Components of Solar Cells

ES83
Whitney Thompson, Biological Sciences
Faculty Mentor: Ryan Earley, Biological Sciences
Risky Business: The Effects of Oral Contraceptives on Fish Behavior

ES84
Joseph Nuss, Chemical & Biological Engineering
Faculty Mentor: Robin Rogers, Chemistry
Dehydration of Hydrated f-Element Complexes with 1,3 diethylimidazole-2-thione

ES85
Elijah Coleman, Physics & Astronomy
Faculty Mentor: Dean Townsley, Physics & Astronomy
Detonation Strength in Stellar Explosions

ES86
Sean Miller, Chemistry
Faculty Mentor: David Dixon, Chemistry
Computational Studies of Phosphorylated Amino Acids
ES87
Benjamin McCormick, Chemistry
Faculty Mentor: David Nikles, Chemistry
Poly(caprolactone-urethane-ethylene glycol) Triblock Copolymers for a Magnetically Triggered, Targeted Drug Delivery System

ES88
Steven Spellmon, Chemical & Biological Engineering
Faculty Mentor: David Dixon, Chemistry
Bond Energies of Solvated Frustrated Lewis Pairs

ES89
Alexander Hale, Biological Sciences
Faculty Mentor: Jeffrey Lozier, Biological Sciences
Changes in Body Size and Wing Morphology with Elevation in a Montane Bumble Bee

ES90
Ashley Gilchrist, Biological Sciences
Faculty Mentor: Laura Reed, Biological Sciences
Genic Effects on Induced Egg Dumping in Female Drosophila melanogaster

ES91
Nicole Kernahan, Biological Sciences
Faculty Mentor: Ryan Earley, Biological Sciences
Adaptive Implications of Vibrant Coloring for Aggression between Convict Cichlid Females

ES92
Erica Schumann, Anthropology
Faculty Mentor: Christopher Lynn, Anthropology
Multi-Level Selection in Religious Communities: Assessing Sustainability in Unitarian Universalism
DIVISION OF SOCIAL & BEHAVIORAL SCIENCES, BUSINESS & EDUCATION

SCHEDULE OF ORAL PRESENTATIONS

Mobile Room

1:00  
Jason Schau, Economics, Finance & Legal Studies  
Faculty Mentor: Utz McKnight, Political Science  
*University of Alabama Racial Climate: Race, and It's Impact on Campus Today*

1:20  
Nichole Dennis, Criminal Justice  
Faculty Mentor: Adam Lankford, Criminal Justice  
*Mass Shootings Then and Now: A Comparison of Attacks from 2011-2012 with Attacks from the Past*

1:40  
Kevin Allen, Economics, Finance & Legal Studies  
Faculty Mentor: Paul Drnevish, Economics, Finance & Legal Studies  
*Slack and Growth Performance*

2:00  
Jessica Boozer, Human Nutrition & Hospitality Management  
Faculty Mentor: Jeannine Lawrence, Human Nutrition & Hospitality Management  
*Factors Associated with Weight Maintenance following Weight Loss in African-American and European-American Females Living in Alabama*

2:20  
Christopher Moran, Economics, Finance & Legal Studies  
Faculty Mentor: James Cover, Economics, Finance & Legal Studies  
*Researching New Methods to Become Less Dependent on Middle Eastern Oil*

2:40  
Zachary Van Scoy, Economics, Finance & Legal Studies  
Faculty Mentor: Kevin Pflum, Economics, Finance & Legal Studies  
*Competition and Quality Choice in Hospital Markets*
DIVISION OF SOCIAL & BEHAVIORAL SCIENCES, BUSINESS & EDUCATION

LISTING OF POSTER PRESENTATIONS

ES93
Jacob Fondriest, Physics & Astronomy
Faculty Mentor: Patrick Leclair, Physics & Astronomy
Development of an inexpensive surface electromyograph

ES94
Karen Wang, Psychology
Faculty Mentor: William Hart, Psychology
Means to Goal Affective Transference: A Goal-Systems-Theory Approach to Goal Adoption

ES95
Madison Santana, Biological Sciences
Bianca Bryant, Biological Sciences
Mary Beth Lewis, Biological Sciences
Faculty Mentor: Ansley Gilpin, Psychology
Power PATHS

ES96
Danielle Peters, Political Science
Faculty Mentor: Anne Williamson, Political Science
Public Participation in Fair Housing Policy

ES97
Kaitlin Burchett, Psychology
Faculty Mentor: Martin Sellborn, Psychology
The Effect of Hostile Attribution Bias on the Relationship Between Psychopathy and Aggression

ES98
Aidan Hathaway, Economics, Finance & Legal Studies
Faculty Mentor: Walter Enders, Economics, Finance & Legal Studies
The Changing Nonlinear Relationship Between Income and Terrorism

ES99
Velmatsu Lewis, Political Science
Faculty Mentor: Terry Royed, Political Science
The Fulfillment of Political Party Pledges
ES100
Jenna Witkowski, Communicative Disorders
Faculty Mentor: Rachel Saffo, Communicative Disorders
Impact of Bilingualism on the Field of Speech Pathology in the United States

ES101
Gianna Ceophas, Political Science
Faculty Mentor: Anne Williamson, Political Science
Mapping Fair Housing Progress

ES102
Sarah Steeley, New College
Faculty Mentor: Fran Conners, Psychology
Relation of Language Intervention History to Language Measures in Youth with Down Syndrome and Other Intellectual Disabilities

ES103
Clare Farrow, Anthropology
Faculty Mentor: Ian Brown, Anthropology
Gravestone Photo Portraits and the Military

ES104
Daniel Stephenson, Political Science
Faculty Mentor: Dana Patton, Political Science
Shortage of Primary Care Physicians in the State of Alabama

ES105
Wesley Korfe, Psychology
Faculty Mentor: Beverly Thorn, Psychology
Cognitive Magnification as a Predictor of Pain Tolerance in College Students

ES106
August Anderson, Communicative Disorders
Faculty Mentor: Anthony Blair, Communicative Disorders
Startle Response During a Modified Stroop Task

ES107
Rachel Brasier, Political Science
Faculty Mentor: Douglas Gibler, Political Science
Legislative Signaling and the Democratic Peace

ES108
Carson Patterson, Anthropology
Faculty Mentor: Jason DeCaro, Anthropology
Preschool Intervention: A Physiological Analysis
ES109
Mathew Mecoli, Political Science
Faculty Mentor: Emily Ritter, Political Science
Defining Civil War

ES110
Katherine Green, Political Science
Faculty Mentor: Robert Fording, Political Science
Discrepancies and Similarities in Political Rhetoric of Tea Party and Non-Tea-party Legislators in the Florida Congress

ES111
Kate Blackwell, Accounting
Faculty Mentor: Janis Edwards, Political Science
Determining Rhetoric in Politica through Pictures in Newspapers

ES112
Robert Sixto, Psychology
Faculty Mentor: Mathew Jarret, Psychology
Attention-Deficit/Hyperactivity Disorder (ADHD) and Substance Use

ES113
Courtney Ricciardi, Psychology
Faculty Mentor: Alexa Tullett, Psychology
Effect of Emotional Contagion on Approach and Withdrawal Behaviors

ES114
Danielle Sahud, Communicative Disorders
Faculty Mentor: Anthony Buhr, Communicative Disorders
Longitudinal Change in Preschool-Age Stuttering

ES115
Meghan Steel, Anthropology
Faculty Mentor: Christopher Lynn, Anthropology
Fireside Mediation: The Induction of a Relaxation Response by Focused Attention on a Flickering Light and Novel Sound Phenomenon

ES116
Melinda Carr, Psychology
Faculty Mentor: Kristina McDonald, Psychology
“You Don’t Have to Like Me, But You Have to Respect Me”: A Comparison of How Dislike and Disrespect Experiences Elicit Aggression
ES17
**Samantha Slater**, Communicative Disorders
Faculty Mentor: Anthony Buhr, Communicative Disorders

*Self-Monitoring and Effects on Physiological Arousal*

ES18
**Allison Nilsen**, Biological Sciences
Faculty Mentor: Philip Gable, Psychology

*Sadness Speeds and Slows the Sense of Time*

ES19
**Emily Austin**, Kinesiology
Faculty Mentor: Beverly Thorn, Psychology

*Attitudes about Yoga as a Predictor of Intent to Try Yoga in Older Adults with Chronic Pain*

ES20
**Alex Morris**, Music
Faculty Mentor: Lisa Hooper, Educational Studies in Psychology, Research Method & Counseling

*The Association between Perceived Cultural Competence and Treatment Adherence in Individuals Living with Diabetes Mellitus*

ES21
**Alexandria Dolan**, Curriculum & Instruction
Faculty Mentor: Diane Sekeres, Curriculum & Instruction

*Strategies for Reading Multimedia Materials*

ES22
**Jillian Bibbins**, Electrical & Computer Engineering
**Jay Hamilton**, Computer Science
Faculty Mentor: Monica Anderson, Computer Science

*Teach the Future of Tomorrow: Engineering Edition*

ES23
**Clayton Link**, Psychology
Faculty Mentor: Lisa Hooper, Educational Studies in Psychology, Research Method & Counseling

*Research Methodology: Project ACTS, A Case Study*

ES24
**Kelly Zaprzal**, Kinesiology
Faculty Mentor: Randy Salekin, Psychology

*Mental Set in Conduct Problem Youth with Interpersonal Callousness: Static versus Dynamic Theories of Intelligence*
ES125
Anna Forrester, Anthropology
Faculty Mentor: Philo Hutcheson, Educational Leadership, Technology & Policy
59 Years of All Deliberate Speed

ES126
Allison Montgomery, Biological Sciences
Faculty Mentor: Lori Turner, Health Sciences
Evaluation of Web-based Osteoporosis Educational Materials

ES127
Karli Guyther, Communication Studies
Faculty Mentor: Karla Gower, Advertising & Public Relations
The Corporate Defamation Plaintiff: Public or Private?

ES128
Kathleen Powers, English
Faculty Mentor: Mary Meares, Communication Studies
Corporate Diversity Competence

ES129
Kevin Pabst, Communication Studies
Faculty Mentor: Jason Black, Communication Studies
"Don't Worry 'Bout Losing Your Accent; A Southern Man Tells Better Jokes": Generationalism in the Southern-Based Lyrics of the Drive-By Truckers

ES130
Jacklyn Farrow, Information Systems, Statistics & Management Sciences
Faculty Mentor: Uzma Raja, Information Systems, Statistics & Management Sciences
User effort Computations for Software Defects

ES131
Megan Costello, Nursing
Faculty Mentor: Anthony Roberson, Nursing
Community Based Participatory Research in Adolescent Mental Health

ES132
Bradley Midkiff, Obstetrics & Gynecology
Faculty Mentor: Marilyn Handley, Nursing
Smoking and Pregnancy
ES133
Alexis Willman, Human Nutrition & Hospitality Management
Faculty Mentor: Linda Knol, Human Nutrition & Hospitality Management
Factors that Affect Menu Label Use in College Cafeterias

ES134
Kaitlyn Robinson, Human Development & Family Studies
Faculty Mentor: Maria Hernandez-Reif, Human Development & Family Studies
Family Interaction Project

ES135
Alyson Lee, Nursing
Faculty Mentor: Jason Scofield, Human Development & Family Studies
Children's Multimodal Disambiguation: Learning Names for Objects Touched but Not Seen

ES136
Sarah Black, Human Nutrition & Hospitality Management
Faculty Mentor: Linda Knol, Human Nutrition & Hospitality Management
Obesity Rates of Third Grade Children in Alabama

ES137
Scott Leary, Biological Sciences
Faculty Mentor: Stuart Usdan, Human Environmental Sciences
Stress Among Greek Pledges in the Context of Various Parameters of Mental Health

ES138
Sarah Noles, Communication Studies
Mallory Uekman, Biological Sciences
Jennifer Hodnett, Human Development & Family Studies
Kirsten Corless, Human Development & Family Studies
Cecile Komara, Human Development & Family Studies
Faculty Mentor: Mary Elizabeth Curtner-Smith, Human Development & Family Studies
Young Children's Sleep Arrangements and How They Vary with Mothers' and Fathers' Reports of Marital Quality and Parenting

ES139
Solitayr Cotten, Human Development & Family Studies
Faculty Mentor: John Bolland, Human Environmental Sciences
The Effects of Family Instability on Adolescent Risk Behaviors

ES140
Erin Adams, Economics, Finance & Legal Studies
Faculty Mentor: Jun Ma, Economics, Finance & Legal Studies
Measuring Changes in External Wealth of Italy and Spain
ES141
Paul Kolotka, Economics, Finance & Legal Studies
Faculty Mentor: James Cover, Economics, Finance & Legal Studies
The Viability of the Fuel Tax: Funding the Transportation Ecosystem

ES142
Corinne Jenkins, Economics, Finance & Legal Studies
Faculty Mentor: Paan Jindapon, Economics, Finance & Legal Studies
Vertical Integration

ES143
Weston Harris, Information Systems, Statistics & Management Sciences
Faculty Mentor: David Hale, Information Systems, Statistics & Management Sciences
Connecting ALABAMA

ES144
Rebecca McGuire, Accounting
Faculty Mentor: Jase Ramsey, Management & Marketing
The Mediating Effects of Adjustment on the Strain-Performance Relationship Among International Travelers

ES145
Cole Adams, Economics, Finance & Legal Studies
Faculty Mentor: Jesse Ellis, Economics, Finance & Legal Studies
How Connected Are They?

ES146
Claiborne Fountain, Economics, Finance & Legal Studies
Faculty Mentor: Shawn Mobbs, Economics, Finance & Legal Studies
Role of Attractiveness of CEO in Stock Price

ES147
Emily Jaeger, Management & Marketing
Faculty Mentor: Helenka Nolan, Management & Marketing
Shared Values

ES148
Kelly Klevitsky, Economics, Finance & Legal Studies
Faculty Mentor: Douglas Cook, Economics, Finance & Legal Studies
Social Networks and the Transfer of Private Information

ES149
Emily Schmidt, Computer Science
Faculty Mentor: Kathryn Seigfried-Spellar, Criminal Justice
Pirates, Hackers, Virus-Writers - Oh My!
ES150
Veronica Coleman, Biological Sciences
Faculty Mentor: John Wheat, Community & Rural Medicine
Analysis of Factors Pertaining to Local Physician Density in Alabama Counties

ES151
Abbie Willingham, Management & Marketing
Faculty Mentor: John Giggie, History
The Role of Women in Civil War Reenacting Culture

ES152
Angela Ray, Psychology
Faculty Mentor: Jason Scofield, Human Development & Family Studies
Children's Selective Trust of Object Naming and Function

DIVISION OF FINE ARTS & HUMANITIES

SCHEDULE OF ORAL PRESENTATIONS

Morgan Board Room

1:00
Patrick Rickert, History
Faculty Mentor: Howard Jones, History
Theodore Roosevelt and the Emergence of a Global American Foreign Policy

1:20
Mitchell Dykstra, Philosophy
Faculty Mentor: Chase Wrenn, Philosophy
The Advantages of Deflationary Concepts of Truth

1:40
Johanna Obenda, History
Faculty Mentor: Jenny Shaw, History
17th Century Barbados Slave Naming Practices: A Retention of African Heritage

2:00
Christa McCrorie, Political Science
Faculty Mentor: Douglas Lightfoot, Modern Languages & Classics
Resurrecting the Linguistic Term "Affixoid"

2:20
Kevin Jones, Art
Faculty Mentor: Lucy Curzon, Art
Examining Thai Art in the Paul R. Jones Collection
2:40

**Amanda Bennett**, English
Faculty Mentor: Trudier Harris, English

*A Burning House: An Analysis of Criticisms of Dr. Martin Luther King Within the Black Power Movement*

**DIVISION OF FINE ARTS & HUMANITIES**

**LISTING OF POSTER PRESENTATIONS**

**ES153**

**Laura Smith**, Art
Faculty Mentor: Lucy Curzon, Art

*Paul R. Jones Collection of American Art*

**ES154**

**Debra Logan**, English
Faculty Mentor: Patty White, English

*Slash Pine Press: Community, Erudition, Experience*

**ES155**

**Emily Williams**, Journalism
Faculty Mentor: Patty White, English

*Life in Early Demopolis: The French Settlement of West Alabama*

**ES156**

**Sam Gerard**, History
Faculty Mentor: John Beeler, History

*How Naval Expansion Veiled the Decline of the British Empire*

**ES157**

**Jamie Bowman**, English
Faculty Mentor: Emily Wittman, English

*Confronting Ghosts: Seeing the Past in the Present*

**ES158**

**Madeline Waggoner**, Advertising & Public Relations
**John Kramer**, History
Faculty Mentor: James Mixson, History

*Latin Influences in Ireland’s Golden Age and How Ireland Shaped the World*

**ES159**

**Mary Heske**, Biological Sciences
Faculty Mentor: Ellen Spears, American Studies

*Historiography of Changing Scholarship in Race, Health and Ethnic Studies*
ACKNOWLEDGEMENTS

Our special thanks to:

UNDERGRADUATE RESEARCH AND
CREATIVE ACTIVITY
COORDINATORS

FACULTY MENTORS

STUDENT & STAFF VOLUNTEERS

OFFICE FOR SPONSORED PROGRAMS

BRYANT CONFERENCE CENTER

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