

wirca

UNDERGRADUATE RESEARCH &
CREATIVE ACTIVITY CONFERENCE

MARCH 27, 2019



PRESENTED BY THE OFFICE FOR UNDERGRADUATE RESEARCH

MORE THAN A RESEARCH CONFERENCE

More about us:

- We offer the **Emerging Scholars Program**, an exciting opportunity for students at the University of Alabama that helps them get involved in research with a faculty mentor in their chosen field. Applications are due April 30th, and can be found at undergraduateresearch.ua.edu.
- The **Undergraduate Research Resource Center** is available for assistance in all your research needs. We provide in-person assistance regarding the Emerging Scholars Program, research questions, and a staff of undergraduate volunteers available to answer questions about the Office of Undergraduate Research, ESP, and different disciplines of research. We're located in Mary Burke West 124.
- We regularly host **meet-and-greets and info sessions** with our student Ambassadors. For updates on these events or to apply to become an Ambassador, please visit undergraduateresearch.ua.edu.

urca

UNDERGRADUATE RESEARCH & CREATIVE ACTIVITY CONFERENCE

ORDER OF EVENTS

Poster Session 1 Health Sciences	9 AM - 10:30 AM pgs. 3-8
Poster Session 2 Life/Physical Sciences Engineering, Transportation & Energy	11 AM - 12:30 PM pgs. 9-15
Poster Session 3 Social Sciences	1 PM - 2:30 PM pgs. 16-20
Poster Session 4 Arts & Humanities Business Computer Science, MIS & Cyber Fine Arts Education	3 PM - 4:30 PM pgs. 21-26

Bolade Ajoloko

The Eaton Clinic
Mentor: Lori Turner

Emma Bazarek

Trends in Opioid Use Among Alabama Medicaid Enrollees
Mentor: Dwight Lewis

Samantha Beard

The Capitol School Personal Health Class
Mentor: Lori Turner

Jessica Bentley, Claire Lewis

Sex-related Differences in Anthropometric Measures in Young Adults
Mentor: Michael Fedewa

Kate Bergey

RISE Center
Mentor: Lori Turner

Zoe Berndt, Peyton Badura

Reducing Obesity and Food Insecurity with Low-Income Families in the United States: A Community-Based Participatory Action Research Proposal
Mentor: Darren Surman

Erin Blaney

Make-A-Wish Alabama Volunteer Services Internship
Mentor: Lori Turner

Abigail Boucher

A Novel Meta-Analytic Approach to Developing an Accurate Body Composition Prediction Equation Based on the Body Density
Mentor: Michael Fedewa

Thomas Bugg, Shaoye Chapman, Aaron Frederick

Marion on the Move
Mentor: David Bolus

Carnell Burden

AI's Pals
Mentor: Lori Turner

Sarah Burnash

Sex Differences in Cardiovascular Drift and Maximal Oxygen Uptake During Heat Stress
Mentor: Dr. Jonathan Wingo

Madelyn Campbell, Josie Niedermeier

Developing and Testing the Acceptability of a Novel Behavioral Intervention for Individuals with Opioid Use Disorders
Mentor: Mercy Mumba

Parker Carmichael, Aimee Travis

How does using blood-flow restriction in rehab influence time-to-progression points in ACL rehab in college football players?
Mentor: Elizabeth Hibberd

Laura Carrasquilla

Influence of parents on sport specialization and injury rates in adolescent baseball players
Mentor: Elizabeth Hibberd

Nicole Conde

Mindfulness-Based Relapse Prevention for Opioid Use Disorders
Mentor: Mercy Mumba

Andrew Cooper

Nanoencapsulation of Curcumin and β -carotene in Amylose Inclusion Complex
Mentor: Libo Tan

Rachael Addison Crowder

Variables Impacting the Quality of Life of Dementia Caregivers: A Secondary Analysis
Mentor: Megan Lippe

Richard “Trip” Crowley, Taryn Wallace, Gurusai “Su” Peramsett

Rural Health Care Provider's Perspective:
Implications for use of a Health Literacy Tool in
Primary Care

Mentor: JoAnn Oliver

Juliette Daniel, Shanquita Ruffin

The Mental Health Assessment of The University of
Alabama College Students

Mentor: Lori Turner

Darby Davenport

Distributed Darbs: The Intersections of Blockchain
Technology and Healthcare

Mentor: Ashley Ewing

Rebecca de la O

Impact of the UA Culinary Medicine Program on
Interprofessional Practice

Mentor: Linda Knol

Ricardo DeLeon

Developing a novel equation to estimate body
composition: a systematic review and meta-analysis

Mentor: Michael Fedewa

Elizabeth Di Valerio

Modeling the Journey of Transgender and Gender
Creative (TGC) Patients through Healthcare System
Contact Points and Experiences of Stigma

Mentor: Joshua Eyer

Elisabeth Dunbar

Four-Compartment Models of Body Composition
Analysis: A Meta-Analytic Approach to Developing
Race and Sex-Specific Methods

Mentor: Michael Fedewa

Brandon Edney

The impact of Lonafarnib on the behavior of
glioblastoma stem cells

Mentor: Shreyas Rao

Samantha Engel

West Alabama Food Bank Secret Meals Nutritional
Program

Mentor: Lori Turner

Madeline Erwin

Maternal Vitamin A Supplementation Modulates
Adipose Tissue Development in Offspring of Rats
Consuming a High-Fat Diet

Mentor: Libo Tan

Sara Ferguson

Assessing Risk Factors for Cardiovascular Disease and
Type 2 Diabetes in Low-Income, Minority Preschool
Children

Mentor: Michele Montgomery

Amanda Ferrito

Physiological Correlates of Energy and Fatigue: An
Addison's Disease Case Study

Mentor: Michael Fedewa

Analiene Gerald, Sarah Abston

Taste is the most powerful determinant for
predicting consumers' intention to consume
antioxidant-infused chewing gum

Mentor: Seung Eun Jung

Brianna Goldfon

First Baptist Child Development Center Flu
Prevention Intervention

Mentor: Lori Turner

Tomasz Gruchala

Mental Health Consequences of Digital Media
Addiction

Mentor: Alan Blum

Aly Gutierrez

Inhibitory Effect of Tea on the in vitro Enzymatic
Digestion of Starch

Mentor: Lingyan Kong

Kaitlyn Haverty

Neuro-protective effect of Ayurveda preparation, Saraswatharishtam, on Spectracide induced neurological disorder in fly model
Mentor: Anathbandhu Chaudhuri

Katherine Hendry

Measured Emotional Intelligence in RN to BSN Students
Mentor: Haley Strickland

Grace Hitchcock

The Importance of Breastfeeding on Physical, Cognitive, and Adaptive Behavior Development in Infancy
Mentor: Maria Hernandez-Reif

Erika Hochhaus, Nicole Conde

The Moderating effect of Alcohol Use on Physical and Mental Well-being of Older Adults
Mentor: Mercy Mumba

Amelia Horine

Project Health Greek Peer Educators
Mentor: Lori Turner

Camille Howarth, Shelby Castellanos

Perceived vs. Actual Alcohol Use At The University Of Alabama
Mentor: Jen Nickelson

Halee Hudson, Lauren Wallace

Enriching Happiness, Hope, and Quality of Life
Mentor: David Bolus

Garrison Hughes

Post-Revolution Health Care in Cuba
Mentor: Jacqueline Morgan

Victoria Ice

Community Impact of Hospice of Western Alabama
Mentor: Lori Turner

Samantha Johns, Mykaela Watt, Madison Desch

Parental Involvement in Adolescent Health Literacy
Mentor: Nathan Culmer

Elizabeth Kantzler

The Opioid Epidemic: Examining the Long-term Effectiveness of Opioids as Pain Relievers
Mentor: Jason Parton

Jack Kappelman, David Zell, Will Schramm, Luke Porter

A Study of Youth Suicide By Firearm Rates
Mentor: Richard Fording

Katelyn Kcomt, Megan Cobb

Burnout and Empowerment among Medical Faculty, Staff, and Residents in an Academic Medical Center
Mentor: Nathan Culmer

Kevin Keller

The University of Alabama Project Health Organization
Mentor: Lori Turner

Kaylyn Kirksey

The Effects of Hazardous Chemicals on Occupational Asthma in Nail Salons
Mentor: Kim Bissell

Brandon Lucas

Enhancing Brain Segmentation Quality: Application in Aging and Alzheimer's Disease Risk
Mentor: Ian McDonough

Molly Lukas, Gracie Avery

Examining the Effects of Virtual Reality on Minimizing Pain in Children Receiving an Injection
Mentor: Sherwood Burns-Nader

Megan Malloy

Examination of Food Disparities at The University of Alabama
Mentor: Lori Turner

Erica Martin

The Effects of High Volume Barbell Squatting on Quadricep and Hamstring Strength

Mentor: Michael Esco

Jordan May, Julianne Rockett, Joy Bobo

Understanding Common Barriers and Facilitators of Whole Grain Consumption Among the Older Adult Population: A Literature Review

Mentor: Seung Eun Jung

Mia McKee

A Review of the Literature on Occupational Health, Safety, and Performance of Tactical and Industrial Athletes

Mentor: Hayley MacDonald

Hillary Melton

Telomere Length, American Heart Association's Life's Simple 7, and Psychosociocultural Factors Among African American Women

Mentor: Theresa Wadas

Hannah Meyer, Katherine Grimm

Evaluation of the Triple Aim of Medicine in Ambulance-Based Telemedicine: a Systematic Literature Review

Mentor: Nathan Culmer

Sydney Miles

Adipose Tissue Development of Neonatal and Weanling Rats in Response to Maternal High Fat Diet Supplemented with Lycopene

Mentor: Libo Tan

Dalton Morris, Jordan Pyatt, Isabella Gladden, Ashton Blasingim

Customizable and Low-Cost 3D Printed Prosthetics for Pediatric Patients

Mentor: Shane Sharpe

Kathleen O`Neal

Relationship Between Measures of Oral Feeding Skill and Oral Sensory Processing for Children Suspected fo Pediatric Feeding Disorders

Mentor: Memorie Gosa

Alex Parks, Elisabeth Pettibone

Functional Sugar-Free Gums Infused with Spices Improve the Antioxidant Capacity of Saliva

Mentor: Kristi Crowe-White

Sydney Perreault

Cultural Differences in USA and Kenya Children's Anxieties as Depicted by Drawings

Mentor: Sherwood Burns-Nader

Jordan Leigh Pfeffle, Tristen Turk

How do we raise awareness of local food throughout campus?

Mentor: Seung Eun Jung

Luke Rakers

Computer Simulation of Cryoprotectants' Behavior in Cellular Membranes

Mentor: Heath Turner

Riley Raynor

Cancer Screening Disparities in Rural Alabama

Mentor: Dr. Hee Yun Lee

Riley Raynor

Factors associated with HPV Literacy among adults in Minnesota

Mentor: Dr. Hee Yun Lee

MacKenzie Robb, Abby Jurczyk

Physical Activity Predicts Depression in Older Adults

Mentor: Mercy Mumba

Brooke Rodenberry

Health Education and Promotion Program: Verner Elementary School Extended Day Program

Mentor: Lori Turner

JaPria Rodgers

Turning Point: Domestic Violence and Sexual Assault Services

Mentor: Lori Turner

Sarah Rogers

Tuscaloosa's One Place (TOP) and the Importance of Comprehensive Reentry Services for Juvenile Offenders

Mentor: Lori Turner

Erika Schemmel

Neuroplasticity in Individuals with Stroke-Induced Motor Cortex Lesions

Mentor: Fran Connors

Melissa Sharpe

Examining Opioid Use and Socioeconomic Disparity Among College Students

Mentor: Michael Fedewa

Grace Shirah, Hannah Stevens

Relationship Between Pediatric Oral Feeding Skill and Reported Behavior During Mealtimes

Mentor: Memorie Gosa

Josiah Sowell

Drug Discovery from Natural Products and Traditional Remedies in Cuba

Mentor: Lukasz Ciesla

Jeffery Stacy Jr.

Al's Pals UA Mentorship Program

Mentor: Lori Turner

Alexandra Stanley, Allison Ricamato

Evaluating Care Team Communication During an Educational End Of Life Simulation

Mentor: Megan Lippe

Savannah Stewart

Food Distribution in Tuscaloosa County

Mentor: Darren Surman

Addison Stewart

The difference in primary care emphasis and its result on the total health of the population in the United States and Cuba

Mentor: James Leeper

Hayley Strong, Gabriella Schloss

Barriers and Facilitators of Local Food Consumption in College Aged Students

Mentor: Seung Eun Jung

Josie Surges

Healthcare IT and Medical Sales Research

Mentor: Lori Turner

Michelle Tan

Disproportionate Dental Care Access for Preadolescent Children Under Foster Care in Rural Communities

Mentor: Darren Surman

Mary Tate Thomas

Mental Healthcare: A Global Perspective

Mentor: Lauren Kois

Kaitlyn Towers

What exercises can help prevent overuse shoulder and elbow injuries in baseball pitchers?

Mentor: Lizzie Hibberd

Gracie Trulove, Bailee Gist

Differences in Temporal Measures of Infant Swallow Function

Mentor: Memorie Gosa

Brianna Velez

Cannabis, Sleep, and Traumatic Brain Injury: A Scoping Review

Mentor: Rachael Mumbower

James Weiss

The Cuban Healthcare System: What Can Be Learned from Its Unique Efficiencies and Limitations?

Mentor: William Rabel

Session 1 – 9 AM-10:30 AM
Health Sciences

Imani Williams

Release Through Writing

Mentor: Lori Turner

Hannah Woodard, Gina Briley

Comparing the Overall Satisfaction of Two West
Alabama Lupus Support Groups

Mentor: Pamela Payne-Foster

Mary Caroline Yuk

The Effects of Type 2 Diabetes on High Frequency
Hearing Loss

Mentor: Marcia Hay-McCutcheon

WHAT POWERS UA

Alabama Power is proud to invest in the University of Alabama community through What Powers UA. Community involvement and a commitment to innovation are What Power UA, and make Alabama a great place to live and work. Follow [@WhatPowersUA](#) on Twitter, Instagram and Facebook to learn how you can get involved.



Session 2 – 11 AM-12:30 PM
Life/Physical Sciences,
Engineering, Transportation & Energy

Henry Abrams, Robert Bergstone

Rapid Layer-Specific Annealing Enabled by
Ultraviolet LED for High-Performance Perovskite
Solar Cells

Mentor: Dawen Li

Justin Adam

Gas-Phase Acidities of Di- and Tripeptide Amides

Mentor: David Dixon

Nicole Angel

Electrospinning of Cellulose Acetate Nanofibers:
Process Optimization

Mentor: Lingyan Kong

Gabrielle Angst

Florida - Georgia Line: Paleo Perspectives of the St.
Mary's River

Mentor: Glenn Tootle

Cameron Arnold

Development of ThermoCalc Scripts for High Entropy
Alloys

Mentor: Mark Weaver

Nicolas Benedetto

Conformational Analysis of Multi-Charged Peptides

Mentor: David Dixon

Isabelle Berry

Electrospinning of Thymol and Curcumin-Loaded
Pullulan Nanofibers

Mentor: Lingyan Kong

Sarah Blakely

Hosta Phylogenomics

Mentor: Michael McKain

Timothy Brusuelas

Electrodeposition of Nickel and Iron from Water-in-
Salt Electrolyte

Mentor: Qiang Huang

Hope Burnham

A Phase-Changing Borane Containing Fuel

Mentor: Shane Street

Elizabeth Bury

Mechanical Properties of Dispersions of Galinstan in
Polymer Matrices

Mentor: Amanda Koh

Tanner Carr

Alabama Link-Node Project: Transferring Legacy
Crash Data to an Enterprise GIS-Based Roadway Data
Management System

Mentor: Andrew Graettinger

Jalen Cates

Ab initio calculations of the structural, electronic,
and magnetic properties of the Inverse Heusler
Cr₂FeSi

Mentor: Adam Hauser

Seth Chun

Electrical Characterization of Liquid Metal-Polymer
Composites in Thermoset and Thermoplastic
Polymers

Mentor: Amanda Koh

Victoria Colon, Nathaniel Hill

Dose-Dependent and Sex-Specific Effects of
Synthetic Estrogens on Reproductive Function

Mentor: Ryan Earley

Lauren Cook

Gene-by-Environmental disruption of mitochondrial
homeostasis in response to exposure to a noxious
stimulus in a *C. elegans* model of Parkinson's Disease

Mentor: Kim Caldwell

Gabrielle Covey

Fluorescent Turn-On Sensors for Transition Metals

Mentor: Marco Bonizzoni

Session 2 – 11 AM-12:30 PM
Life/Physical Sciences,
Engineering, Transportation & Energy

Emilia Cytron

Role for Nckx30c ion exchanger in temperature-sensitive paralysis and neurodegeneration in *Drosophila*

Mentor: Stanislava Chtarbanova

Joseph Daidone, Brooks Nagel, Price McGiffert
Streamflow Reconstruction Study

Mentor: Glenn Tootle

Matthew DeBrunner

Developing an Effective Method to Print Liquid Gallium-Indium-Tin Dispersions in The Formation of Stretchable Electronics

Mentor: Amanda Koh

Alexa Deregnacourt

Potential Catalyst for the Dehydrogenative Oxidation of Alcohols

Mentor: Elizabeth Papish

Sarah Deutsch

Use of Machine Learning with Studies of Photon Reconstruction at the LHC with the CMS Detector

Mentor: Conor Henderson

Sakina Dhondia

Incentives to Encourage the Adoption of Connected and Automated Vehicles: Lessons Learned from Hybrid-Electric Vehicle Incentive Programs

Mentor: Shashi Nambisan

Ashley Eberly

Predicting the Properties and Covalency of High Oxidation State $An(OH)_x$ Complexes

Mentor: David Dixon

Lucas Edgren

The Relationship of Freshwater Mussel Community Composition on Stream Productivity

Mentor: Carla Atkinson

Kira Eickman, Owen Cunneely

The Influence of Gut Microbiota Composition on *D. melanogaster* Metabolic Phenotype

Mentor: Laura Reed

Jillian Fields, Nicole Reh

Drink Clean, Think Green

Mentor: David Bolus

Timothy Foley

Determination of Set Point for Alkali-Activated Materials Utilizing Electrical Impedance Spectroscopy

Mentor: Armen Amirkhanian

Thomas Foster

pSiO₂ Incorporated PVDF-HFP/LiClO₄ Solid Polymer Electrolytes for High-performance Lithium Ion Batteries

Mentor: Ruigang Wang

Oren Gary

Understanding Potential Triggers of Drought Awareness via Google Trends: A Comparison Study of the Recent California and South Africa Droughts

Mentor: Johngun Kam

Olivia Gevedon

Identification of the cell-type in which the Transglutaminase gene functions to protect against neurodegeneration in *Drosophila*

Mentor: Stanislava Chtarbanova

Lucas Glisson

Bottom-up Effects of Leaf Litter Conditioning on Snail Physiological Rates

Mentor: Carla Atkinson

Danielle Goduto, Catherine Howard

Characterization of Salt Tolerance in Greater Duckweed (*Spirodela polyrhiza*)

Mentor: Michael McKain

Amber Gomez

Computational Studies of the Thermodynamic Properties of Early Actinide Oxides and Oxy-Fluorides Complexes in Different Oxidation States
Mentor: David Dixon

Kaitlyn Grady

Effects of Leaching on HIPE Foams
Mentor: Amanda Koh

Ansley Hamid

Determining Bioturbation Variation Within Abundant Freshwater Mussel Species
Mentor: Carla Atkinson

Christopher Hannigan

Proton Affinities of Gas Phase Acidic Amino Acids and Small Peptides
Mentor: David Dixon

Lauren Harper

Cost Effective Approaches to Dietary Needs of Sunda Pangolins in Captive Care: A Pilot Study
Mentor: Jeffrey Lozier

Lauren Harper

Investigation of NF- κ B pathways following brain infection in *Drosophila*
Mentor: Stanislava Chtarbanova

Lauren Haynes

Characterizing the Impact of a Natural Toxin Mix in *Drosophila* Species
Mentor: Laura Reed

Christopher Hicks

Investigating genetic regulators of the conserved signaling molecule wingless in *Drosophila melanogaster*
Mentor: John Yoder

Joseph Holden

Development of novel tools to study host-microbiome interactions mediated through ectopic olfactory receptors
Mentor: Lukasz Ciesla

Robert Hughes

Recycled Material Web Map
Mentor: Andrew Graettinger

Mitch Hungerpiller

Computer-Assisted Phenotyping: Finding a Cost-Effective Method for High-Yield Results
Mentor: Michael McKain

Joshua Hunt

Investigating Internal Pressure Changes in Residential Structures during Garage Door Failure in High Wind Events
Mentor: Thang Dao

Katelyn Isbell, Annelise Frank, Peyton Morris, Cecilia Lee

Reconfigurable Antenna and Software Defined Radio for Small Satellite Applications
Mentor: Yang-Ki Hong

Kelsey Johnson

NASA X43 Thermal Loading and a Cooling Approach
Mentor: Semih Olcmen

Benjamin Jones

Improving the Stability of Numerical Algorithms for Electrostatic Analysis of Solvated Biomolecules
Mentor: Shan Zhao

Sydney Jones, Daniel Risman

Variation in photosynthetic syndrome of the C3-C4 intermediate species *Steinchisma hians*
Mentor: Michael McKain

Session 2 – 11 AM-12:30 PM
Life/Physical Sciences,
Engineering, Transportation & Energy

Margaret Kalka, Anthony Fant, Caroline Terry

Sex differences in terrestrial jumping performance and its repeatability in an amphibious fish

Mentor: Ryan Earley

Lacey Kennedy

Investigation of Dopamine Neuron Degeneration as a Consequence of Parkinson's Disease Associated Bacteria

Mentor: Kim Caldwell

Julia Kessel

Determining the Lewis Acidities and Redox Properties of MOF-2 Nanoclusters

Mentor: David Dixon

Jackson Knight

Southeast U.S. Streamflow Drought Variability

Mentor: Glenn Tootle

Haley Kuhns

Identification of novel genes involved in survival to virus infection in the aged host *Drosophila melanogaster*

Mentor: Stanislava Chtarbanova

Jane Kunberger

Investigating Variables Driving Unionid Abundance and Biodiversity

Mentor: Carla Atkinson

Skyler Lambert

Enhanced Ionization of Peptides for Proteomics Applications

Mentor: David Dixon

Meredith Lee

Characterization of Magnetorheological Fluids and Thiolated Iron to Prevent Oxidization Of Metal Particles

Mentor: Amanda Koh

Kyle Maas

Embryonic exposure to endocrine disruptors: behavioral and physiological consequences in mangrove rivulus fish, *Kryptolebias marmoratus*

Mentor: Ryan Earley

Laura Malis

Vehicle Crashes: Early Detection through Image Recognition

Mentor: Travis Atkison

Daniel Mantoni

Effect of Organic Molecules on the Electrodeposition of Cobalt for Interconnect Applications

Mentor: Qiang Huang

Arianna Martin-Rodriguez

The Link-Link Table: A GIS-Based Functional Merge Between Two Roadway Systems to Enhance Safety Standards

Mentor: Andrew Graettinger

Allison McCarthy

Tracking the Evolution of Simulated Galaxies

Mentor: Jeremy Bailin

Adam McCormack

Correcting Chloroplast Genome Misassembly Caused by Multiple Large Repeat Regions

Mentor: Michael McKain

Lauren McLoughlin, Rachel Ploeger

Ultra-Stretchable Conductive Polymer Complex as Strain Sensor with Excellent Linearity and Repeatable Autonomous Self-Healing Ability

Mentor: Evan Wujcik

Ryan McMichael

Cuba's Hurricane Response System: Pros and Cons of a Socialist System

Mentor: David Keelings

Kayla R. Meeks

Belize Mapping Project: Modernization of Geospatial Landscape Analyses
Mentor: Michael Steinberg

Nathan Moniz

A Regulatory Intersection Between Dopamine and Small RNA Transport in a *C. elegans* Parkinson's Model
Mentor: Guy Caldwell

Emma Neumann, Jake Houck

Hybridization and Phylogenetic Relationships Between Southeastern *Vaccinium* Species
Mentor: Michael McKain

Phuong Nguyen

Density Matrix Theory for Photo-Induced Valley Hall Conductivity in Two-Dimensional Dirac Semiconductors
Mentor: Wang-Kong Tse

Dani Noll, Emily DeVriese

Design, Synthesis, and Application of High-Performance Ionene Polymers
Mentor: Jason Bara

Jack O'Donohue

Development of a Computational Chemistry Environment: Application to Palladium Clusters
Mentor: David Dixon

Maya Owens

How Do Nutrient Recycling Rates Vary Across Freshwater Mussels?
Mentor: Carla Atkinson

Emily Pabst

Are ultraconserved elements an informative marker for reconstructing deep molluscan phylogeny?
Mentor: Kevin Kocot

Nicholas Parsa

Enhanced Ionization of Peptides using Lanthanum (III) for Proteomics Applications
Mentor: David Dixon

Anna Perkins

Development of Non-Leaching Surfactant for High Internal Phase Polymer Foams
Mentor: Amanda Koh

Jonathan Platt, Leo Vanderburgh, Katelyn Isbell

Miniaturized Helical FM Antenna Using 3D Printed Polymer and Ferrite Core
Mentor: Yang-Ki Hong

Brianna Pniak

Thermodynamic Properties such as Fluoride and Electron Affinities of the Group III-V Fluorides and Oxyfluorides
Mentor: David Dixon

Jacob Powell

Gamma-ray Observations of the M87 Radio Galaxy with VERITAS
Mentor: Marcos Santander

Carter Pruett

Discovery of a Mobile Basin population of the critically endangered Fat Threeridge Mussel
Mentor: Kevin Kocot

La'Darious Quinn

Thermodynamic Properties of Group VI and VII Transition Metal Fluorides and Oxy-Fluorides
Mentor: David Dixon

Christopher Raddatz, Ward Pullen

Elucidating Caffeine Metabolism Regulation in Bacteria
Mentor: Ryan Summers

Session 2 – 11 AM-12:30 PM
Life/Physical Sciences,
Engineering, Transportation & Energy

Serena Ralph

Analyzing SMILES-Based Descriptors for Structure-Economy Relationships
Mentor: Vincent Scafani

Tyler Rhodes, Matthew Mason

Spherical Additive Manufacturing 3D Printing Project
Mentor: Susan Burkett

Ariana Rivera

Optimization of Electronic Chemical Sensors
Mentor: Adam Hauser

Clare Robertson

Genetic contribution to variation in fecundity and egg size in mangrove rivulus fish
Mentor: Jennifer Fortunato

Aiyana Saferite

Drug Discovery and Stability Testing for Potential Treatments of Neurodegenerative Disease
Mentor: Lukasz Ciesla

Emma Sanders

Investigating the Impact of Tenascin-C on the Drug Response of Brain Metastatic Breast Cancer Cells
Mentor: Shreyas Rao

Sean Sawaya

Rainbow Schlieren Tomography of Rotating Detonation Combustion
Mentor: Ajay K. Agrawal

Noah Sciambra

Age-dependent Role of Toll-6 in Survival to Viral Infection in *Drosophila melanogaster*
Mentor: Stanislava Chtarbanova-Rudloff

Emma Scott

Simultaneous Real-Time DAQ and Visualization of Multiple Analog Inertial Sensors
Mentor: Vishesh Vikas

Greg Shank

Evaluation of Ionic Liquid Toxicity Using Adherent Mammalian Cells
Mentor: Christopher Brazel

Madeline Shay

The Characterization of FosM, a Novel Class of Fosfomycin Resistance Enzymes found in *Mycobacterium abscessus*
Mentor: Matthew Thompson

Hannah Slater

The Interaction of Azole Bio-Isosteres with Amino Acid Side Chains for Drug Design
Mentor: David Dixon

Jacob Smith

Herbicide Induced Reproductive Dysfunction in Fruit Fly *Drosophila melanogaster*
Mentor: Ananthbandhu Chaudhuri

Caris Smith

Computational Chemistry Studies of Modular Approaches to Design of Novel Ligands for Actinide-Lanthanide Separations
Mentor: David Dixon

Philip Speegle

Finding the Volume Enclosed of a Unit N-Sphere Using Rectangular Coordinates
Mentor: David Cruz-Uribe

Michelle Tan, Rosemary Harline, Rachael Cowan

Investigating modern dietary interventions and adulthood exercise as therapeutic treatments for the negative effects of a juvenile high-fat diet through glucose and protein analysis
Mentor: Laura Reed

Kristina Terrani

A Synthetic Approach to Probe the Structure of Bacterial Peptidyl tRNA Hydrolase (Pth)
Mentor: Stephen Woski

Gemma Truesdell

Fabrication and Characterization of Microbubbles and their Application in Magnetic Smart Fluids
Mentor: Amanda Koh

Ryan Tuckey

Functional Analysis of the Cellular Mechanisms and Genetic Factors Associated with Alzheimer's Disease using *C. elegans*
Mentor: Guy Caldwell

Jordan Tzabari, Julianna Myrick

Sex Differences In Gonadal Energy Content: Implications For Sex Change
Mentor: Ryan Earley

Madeline Vaji

Investigating ApoE-associated regulation of neuroprotection and survival from A β -mediated neurodegeneration in transgenic *Caenorhabditis elegans*.
Mentor: Guy Caldwell

Aaron Vandermus

Long-Term Environmental Monitoring Web Portal
Mentor: Andrew Graettinger

Cole Wagenhals

Observing the behaviors of sputtered zirconium in an oxidizing environment
Mentor: Mark Weaver

Jordan Walker

Manipulation of Properties of Liquid Metal Particles to Produce Electrically Conductive, Stretchable Wires
Mentor: Amanda Koh

Jacob Wall

Stable and Highly Efficient All Inorganic Perovskite Solar Cell
Mentor: Feng Yan

Bree Warrenfeltz

Total Synthesis of (S)-Dihydroresorcylyde
Mentor: Michael Jennings

John White

Novel Electrodeposition Methods for Palladium-Zinc Alloys as Catalysts for Ethanol Oxidation
Mentor: Qiang Huang

Elizabeth Wilkirson

Fully Functional, Voice-Controlled Hand Exoskeleton Glove
Mentor: Xuefeng Wang

Hannah Wineinger

Characterizing the Sensitivity of crRNA in Cas10-csm
Mentor: Jack Dunkle

Blake Wright, Ben Hallihan

Using Isochrones to Examine NICU Availability in Alabama
Mentor: Travis Atkison

Donna Xia

Actinide Aqueous Hydrolysis Reactions: Initial Steps in Actinide Aggregation
Mentor: David Dixon

Julia Zimmerman

The Use of Multiple Water Sources in Households
Mentor: Mark Elliott

Session 3 – 1 PM-2:30 PM
Social Sciences

Erica Ackerman

Adverse Childhood Events and Female Offending
Mentor: Jennifer Kenney

Harrison Adams

The Role Sports Plays in Cuban Society
Mentor: Stan Murphy

Bradley Beasley

Land Rush: A Socio-Economic Synthesis
Mentor: Nicholas Magliocca

Christian Bender

Truth-Telling in Everyday Life
Mentor: Darrin Griffin

Riley Boegel

How interpersonal conflict and attachment style influence adolescent sleep duration
Mentor: Heather Gunn

Aaron Boehm

A Crimson Tide from Coast to Coast: An Evaluation of the Effects of the University of Alabama's Scholarship and Recruitment Policies
Mentor: Elizabeth Wilson

Katie Bostrom

Superstitions and Personalities
Mentor: Darrin Griffin

Lena Brysacz, Justin Myers

Reform or Punishment: The Futility of Criminal Justice in America
Mentor: Darren Surman

Alexis Campbell

Care Access and Structures for Adults With Developmental and Intellectual Disabilities in the South
Mentor: Darren Surman

Taylor Canfield

Sleep, Pain, and Depression Among Nursing Home Residents
Mentor: Patricia Parmelee

Sara Carmichael

Releasing the Incarcerated Elderly: Analysis of State Compassionate Release Policies
Mentor: Jane Daquin

Catherine Carr, Melissa Sharpe

Stigma Towards Medically Assisted Treatment for Opioid Use Disorder Among College Students
Mentor: Tricia Witte

Kate Lanier Carter

The Comorbidity of ADHD and Anxiety in Children
Mentor: Sara Stromeyer

Alisha Caves

Exploring the Associations of Relational Victimization and Relational Aggression with Peer Rejection: A Meta-Analysis
Mentor: Deborah Casper

Autumn Christafore, Julia Hahn, Alyssa Shoonmaker

The Effects of Beat Gesture and Pitch Accenting on Discourse Comprehension and Memory
Mentor: Laura Morett

Mary Elizabeth Clements

Environmental Law's Impact on Environmental Degradation in Cuba
Mentor: Mary Pitts

Jacob Collins

Unlearning Information: Exploring Campus Folklore via Fact-Checking
Mentor: Darrin Griffin

Allie Coogler

An Analytical Approach to Political Insurgency With a Focus on Terrorism
Mentor: Holger Albrecht

Anna Lee Cook

A Study of Millennial and Gen Z Relationships with Modern Mass Media
Mentor: Darren Surman

Anna Lee Cook

A Study of Millennial and Gen Z Relationships with Modern Mass Media
Mentor: Darren Surman

Elizabeth DeAtkine

Children's Beliefs about the Controllability of Thoughts, Actions, and Feelings
Mentor: Jason Scofield

Alyssa Dick

He STEM, She STEM: Exploring the gendered student academic motivations influencing STEM interest and participation
Mentor: Joan Barth

Courtney Diebold

Perceiving Nuances and Punctuation from Online Textual Communications
Mentor: Beverly Roskos-Ewoldsen

Nick Ebel

Nonverbal communication through the lens of BBQ
Mentor: Darrin Griffin

Katherine Emm

Stereotypes, Biases, and Intimate Partner Violence: African American Females in the Courtroom
Mentor: Jennifer Cox, P.h.D

Preston Evans

Time to Bail on the Bail System?
Mentor: Darren Surman

Ariana Evans-Young

Effects of Socially Malevolent Personalities on Altercasting
Mentor: William Hart

Grant Gabrielson

First Comes Google, Then Comes Love: Sequential Information-Seeking Process of Relationship Initiation
Mentor: Leah LeFebvre

Alicia Gallo, Shelton Owen

Examining Predictors of Protective Behavioral Strategies on Alcohol Use in a College Sample
Mentor: Tricia Witte

Olivia Gevedon

Cultural Competence in Cuban Healthcare
Mentor: Jason DeCaro

Emily Gibson, Audrey Rollins

Developing Marion Through Collaboration and Community Resource Accessibility
Mentor: David Bolus

Emily Gibson, Emma Harper, Martha Glen Sease

Celebrating the Art and Historical Significance of the Lincoln Normal Quilters
Mentor: David Bolus

Alyson Giordano

Perceived Norms for Safe Drinking Practices Among College Students
Mentor: Tricia Witte

Austin Goodwin

Leader-Follower Perception of Deceptive Communication
Mentor: Darrin Griffin

Eric Harrison

OnCampus Connect: The Potential Impact of Mobile Resources on a College Campus
Mentor: Tricia Witte

Wyatt Harrison

To What Extent Do New Entrants into an Online Community Influence Discussion? Evidence from Reddit
Mentor: Elliot Panek

Session 3 – 1 PM-2:30 PM
Social Sciences

Sage Hart

Probability Elimination Hypothesis
Mentor: Darrin Griffin

Lawford Hatcher

The Intersection of Sexual Identity and Juul Usage
Mentor: Katherine Chiou

Abigail Horton

XOXO Gossiper: How are Perceptions of Trust and Closeness Affected by Valence and Relational Context of Gossip?
Mentor: Kristina McDonald

Abigail Horton

A Meta-Analysis of the Association Between Relational Aggression and Victimization, and the Unique Associations with Popularity
Mentor: Deborah Casper

Mackenzie Johnson

Developing Countries, Developing Crime: The Effects of Transnational Organized Crime on Culture and Government
Mentor: Diana Dolliver

Angelina Jones

Cognitive Decline in Adolescents and Adults with Down Syndrome
Mentor: Frances Connors

Abigail Kappelman

Morbidity and Mortality in the United States: How Inequality Produces Health Disparities
Mentor: Jason DeCaro

Tori King

Transcranial Direct Current Stimulation in Learning & Memory
Mentor: Ian M. McDonough

Marisa Koster

"Risking a Tipping Point": The Differentiation of Risk Factors in Disordered Eating and Diagnoses
Mentor: Dr. Sara Stromeyer

Haley Kozon, Tara Henderson, Ryan Claunch

How to Help Millennials, "Tomorrow's Leaders of America?" The Role of Financial Knowledge and Financial Advice
Mentor: Kyoung Kim

Ally Krenos

A Global Comparison of Parental Leave Programs
Mentor: Dana Patton

Bailey Lanai

The influence of music on engagement during an art therapy program for adults living with dementia
Mentor: Rebecca Allen

Abigail Laurenson

Making it Real: Personal Transformation and Policy Knowledge in Volunteer and Paid Service Experience
Mentor: Brenda Smith

Margaret Lawson

Mississippi Memories: Lynchings in Hinds County, Mississippi, 1880-1934
Mentor: John Giggie

Rachel Lee

Impact of Non-Qualifying Traumas on PTSD Research and Treatment
Mentor: John Lochman

Ben Leonard

The Cuba Trade Embargo, Alabama's Economy, and the Current U.S.-Cuba Relationship
Mentor: David Bolus

Emma Mansberg

Liberty and Justice for all: Shifting the Work of Legal Aids and District Attorneys to Make Justice More Attainable
Mentor: Darren Surman

Session 3 – 1 PM-2:30 PM
Social Sciences

William Miller, Blaire Taggart, Jacob McCarter, Kaytlyn Carlson

Evaluating Psychosocial Factors Contributing to Successful Opioid Tapering

Mentor: Tricia Witte

Jenna Minser

"Redefining Home": The Impact of Climate Change Related Land Loss on Indigenous Peoples' Relationship to the Land

Mentor: Mairin Odle

Rob Mitchell

The Effect of Multi-Member Legislative Districts on Political Polarization

Mentor: Richard Fording

Meredith Moore

Travel Dialogue and Cuba in the American Imagination

Mentor: David Bolus

Payton Morris

Mindfulness Treatment for College Students with ADHD: Neuropsychological Changes over Time

Mentor: Matthew Jarrett

Jordan Nelson, Courtney Diebold, Catherine McClain

Investigating the Effects of Smartphone Use on Spatial Memory

Mentor: Beverly Roskos

Riley O'Neill

A Multiethnic Examination of Sleep as a Mediator of Relationships Between Childhood Adversity and Adult Emotional Health

Mentor: Matthew Cribbet

Derek Pederson

Female House Candidates and Fundraising

Mentor: Regina Wagner

Andrew Penunuri, Sera Levy

Posttraumatic stress and problem drinking among young adults: differences by trauma type

Mentor: Tricia Witte

Brooklyn Pfanstiel, Caroline Ward, Abby Slusser

"If he's cheating now, he's always going to cheat": Exploring Victim Perspectives and Network Member Involvement in the Coping and Repair Process following Romantic Infidelity

Mentor: Joshua Pederson

Samuel Reece

Quiescence in the Face of the Corruption of Power

Mentor: Darren Surman

Parker Renton, Elizabeth Stinson

How College Students Survive Drinking: Common Protective Drinking Strategies Among College Students

Mentor: Tricia Witte

Samantha Ricks

The Relations of Adaptive Behaviors and Executive Functioning with Parental Stress in Those Parenting a Child with Autism Spectrum Disorder

Mentor: Theodore Tomeny

Ruby Roberts

Drugs and Weapons Trafficking on Tor Network Marketplaces

Mentor: Dr. Diana Dolliver

Olivia Rush, Ashlyn Coats, Anna Peebles

Correlations Between Manufacturer's Stages and IDDSI Levels for Commercially Available Baby Food

Mentor: Memorie Gosa

Andrew Rutledge

Representation of Poverty in Mass Media

Mentor: Darren Surman

Jessica Sheffield

The Age of Artificial Mimicry: Deepfakes

Mentor: Darrin Griffin

Session 3 – 1 PM-2:30 PM
Social Sciences

Mary Shupard

Why Do Officers Support Community Policing?: A Cross-Departmental Comparison
Mentor: Erin Kearns

Nisha Singh

Peer Victimization: The Role of Aggression and Self-Esteem
Mentor: Fran Connors

Elizabeth Small

Sleep and Physical Health in Infancy Predicts Better Social-Emotional Development in the First Two Years of Life
Mentor: Maria Hernandez-Reif

Genevieve Smith

Phased Retirement in Older Americans: Financial and Psychological Well-Being
Mentor: Shinae Choi

Celia Somers

Let's Face It - N170 Rules: Temporal Processing of Facial Features in the Brain Using Event-Related Potentials
Mentor: Firat Soylu

Audrey Stelmach

Children Do Not Always Disambiguate Contrasting Words
Mentor: Jason Scofield

Elizabeth Stinson

Investigating the Moderating Role of Race in the Relationship Between Vascular Health and Brain Activation During an Association Episodic Memory Task in Middle-Aged and Older Adults
Mentor: Ian McDonough

Trey Sullivan

Corruption, Democracy, and Independence in Latin America
Mentor: Jennifer Greer

Dawson Tan

Developing a Toolkit of Human Performance Measures for NASA
Mentor: Kimberly Stowers

Joule Tazbir

Impact of the Revolution & Gender Equality in Cuba
Mentor: Alexandra Perkins

Emily Terry, Katherine Fallon

Personality DSM Disorders and Bullying
Mentor: Randall Salekin

Ally Thomasson

Factors Contributing to a Lack of Access and Uptake of Mental Health Services in Rural Areas
Mentor: Darren Surman

Kaitlin Tindol

Mass Shootings in America: Do Media Representations of Perpetrators Exacerbate the Threat?
Mentor: Adam Lankford

Diamond Williams

Suicidal Ideation; Exploring Related Factors in Adolescents Growing Up Poor
Mentor: Anneliese Bolland

James Wooley, Casey Peterson, Xavier McCoy, Olivia Sizemore, Alexis Nichols, Rachel Glasgow, Allie Sigur
Examining Food Insecurity at The University of Alabama

Mentor: Kim Colburn

Lillian Woolf

Vocabulary and Social Engagement in Children with and without Autism
Mentor: Angela Barber

Session 4 – 3 PM-4:30 PM

Arts & Humanities, Business, Computer
Science, MIS & Cyber, Fine Arts, Education

Emily Adams

Ethical Espionage: The Role of Covert Operations in a
Democratic Government
Mentor: Caroline McClure

Shannon Anderson, Amber Wesoloski

Examining Sibling and Parental Relationship
Memories of Adult Survivors of Childhood Cancer
Mentor: Sherwood Burns-Nader

Samantha Anderson

Exploring the Unique Association between Relational
Aggression and Victimization with Friendship
Characteristics: A Meta-Analysis
Mentor: Dr. Deborah Casper

Madeleine Arancibia

The Impact of Site-Specific Dance
Mentor: Lawrence Jackson

Claire Atkins

Predicting Audit Quality based on Digital Footprints
gathered from Social Media
Mentor: Chezham Sealy

Elise Batchev

Effects of Perspective on Donating Behavior
Mentor: Carlos Bauer

Connor Best

Locus of Control and Charitable Giving
Mentor: Michael Price

Kaitlyn Bishay

Mental Health as a Function of Race and
Circumstance at Four-Year Institutions
Mentor: Elizabeth Wilson

Emma Brown

The Role of Comprehensive P-12 Sex Education on
Collegiate Women's Perceptions and Knowledge
Mentor: Elizabeth Wilson

Rebekah Brunner

2019 IPOs-- Where are the Women?
Mentor: Theresa Welbourne

Lena Brysacz

Facebook Marketing at Pickens County Medical
Center
Mentor: Jef Naidoo

Molly Buffington

A War of Words: The Lutheran-Calvinist Debate on
Acts 3:21 and the Eucharist
Mentor: Kirk Summers

Reese Butler

Comparison of Motives behind Education Systems
Mentor: Martha Makowski

Walter Castillo

India Maritime Strategy in Confronting Chinese
Supremacy
Mentor: Kim Bissell

Jason Castillo

The Effects of Insurer Competition on Healthcare
Premiums
Mentor: Richard Fording

Katelynn Davis

The Effects of Long-term Stress and Congestion on
Time Preferences
Mentor: Michael Price

Ryan Devey

An examination of education policy as it relates to
dropout rates of students with specific learning
disabilities
Mentor: Elizabeth Wilson

Session 4 – 3 PM-4:30 PM

Arts & Humanities, Business, Computer
Science, MIS & Cyber, Fine Arts, Education

Riley Doyle

New Venture Creation through Incubators & Accelerators: What Value Is Created and Who Captures It? Implications for Research, Teaching, and Practice

Mentor: Paul Drnevich

Lauren Dutch

How Female CEOs Shatter the Glass Ceiling

Mentor: Lixiong Guo

Karli Filips

Applying Blue Ocean Strategy to Hire and Assimilate Disabled Workers into Distribution Centers

Mentor: Alex Ellinger

Lindsay Fincher, Lacy Smith, Tejas Dinesh

Transforming Lives through Art

Mentor: David Bolus

Matthew Fisher

State Lottery Demand Analysis

Mentor: Erik Johnson

Megan Friend

The Potential and Impact of Media in Rural Education

Mentor: Darren Surman

Sydney Gabrielson

Flow of Capital in Developing Nations

Mentor: John Heins

Courtney Geary

Trump-Era Cuts to Refugee Resettlement Funding and the Effect on Educational Programming for Refugee Students

Mentor: Yazan Bedritten

Abigail Gorbett

Which Global- and Country-Level Economic Changes Matter Most for Cross-Border Mergers and Acquisitions?

Mentor: Paul Drnevich

Rebecca Griesbach

Examining Anti-Black Bias in the Cuban Revolutionary Press

Mentor: Hilary Green

Samuel Hallam, Pike Briggs, Will Schramm

Beyond 50 Years Jailhouse Project

Mentor: David Bolus

Jack Halpin, Alex Coury, Jake Gillham, Kiersten

Mallory, Merritt McKinney, Matt Creighton

An Online Resource for the Prostate Cancer Community - PCHope

Mentor: David Hale

Mac Hanslip

Effect of Personal Relationships on Banking Behavior

Mentor: Josh Pierce

Robert Henson

Viewing the Debate Tournament as a Critical Cultural Rhetorical Space

Mentor: Darren Henson

Trevor Hill

Roses from the Holocaust

Mentor: Brian Taylor

Amelia Hooper

An Examination of Hula Dance and its Representation in America

Mentor: Lawrence Jackson

Cassandra Horkan

Keep Droning On

Mentor: Paul Drnevich

Session 4 – 3 PM-4:30 PM

Arts & Humanities, Business, Computer
Science, MIS & Cyber, Fine Arts, Education

Lindsay Howard

Merce Cunningham
Mentor: Lawrence Jackson

Lauren Iosue

También la lluvia: Using Western Ideologies to
Misrepresent Indigenous Struggles
Mentor: Marie-Eve Monette

Erin Jacobs

Shields Up! An Examination of Organizational
Changeover Following Significant Data Breaches
Mentor: Matthew Hudnall

Erin Jacobs

Examining Educators: A Workforce of
Disproportionality
Mentor: Darren Surman

Joseph Jensen

Imbalance, Immigration, and Anarchy
Mentor: Brittany Gilmer

Lauren Johnson

Does Non-Tax Revenue Reduce Political
Accountability?
Mentor: Traviss Cassidy

Gretchen Johnson

New Venture Challenges and Growth
Mentor: Lou Marino

Jeffrey Jones

Colonization, Catholicism, and Cuba
Mentor: Lane McLelland

Jack Kappelman

Black Belt Experience Economic Development
Mentor: David Bolus

Asaf Katzir, Jordyn Kent

Fund managers and Morningstar: a dynamic analysis
of mutual fund risk profiles
Mentor: Christopher Whaley

Jordyn Kent, Asaf Katzir

Star Wars: Rent-Seeking for Morningstar Ratings
Mentor: Christopher Whaley

Sarah Lessley

The Next Generation of Marketing: Entering the
Digital Age
Mentor: Susan Fant

Natalie Lett

“Know Thine Own Meaning:” Raciolinguistic
Exploration of *Savage*
Mentor: Dilin Liu

Jermarcus Lewis, Kenton Edwards

Estimating Waist Circumference from Digital Images
Mentor: Michael Fedewa

Jennica Mancarella

Stitching History: Connecting Eras Through Design
Mentor: Brian Taylor

Christopher McCarthy, Parker Grogan, Haskins Jones

Professional Development for the Future of Marion,
Alabama
Mentor: David Bolus

David McDowell

Analysis of Domain Name Server Traffic on Tor
Network Exit Node
Mentor: Diana Dolliver

Bailey McIntosh

The Global Phenomenon of Internet Censorship
Mentor: Chris Roberts

**Chris McKinley, Drew Thomas, Caroline Sisson, Alexis
Finklea, Brenan Wright, Russell Hewitt, Cameron
Ewing**

Visual First in AGILE development
Mentor: Greg Cottrell

Session 4 – 3 PM-4:30 PM

Arts & Humanities, Business, Computer
Science, MIS & Cyber, Fine Arts, Education

Myles McLeroy

Sustainable Mobility: Developing a Web-based
Software Suite for Transportation and Traffic
Analysis

Mentor: Travis Atkison

Katherine Middleton

Synthesis of African American and Afro-Cuban
Experiences Through Art

Mentor: David Bolus

Michael O'Grady

Automated Assessments Using Google Streetview
and Tensorflow

Mentor: Erik Johnson

Courtney Oleksa

Examining the Relationship Between Creativity Goal
Orientation and Self-Reported Creativity in
Occupational Therapists

Mentor: Russell Matthews

Shana Oshinskie

Policy & Progress: Obstacles to Breastfeeding in
Alabama & Cuba

Mentor: Connie Leeper

John Pace

Operation Monkey Coat: A Fashionable Material
Culture Approach to Object-based Research in Dress

Mentor: Marcy Koontz

Emily Passmore, Kevin Williams, Lauren Johnson

The Socio-Economic Impact of Nonprofits in West
Alabama

Mentor: David Ford

Abigail Payne

Increasing Optical Character Recognition by Adding
Localization Algorithms

Mentor: Travis Atkison

Henry Pitts

The Role of Private and Federal Interests in Public
Land Management

Mentor: Darren Surman

Tommie Quinlan

The Rise and Fall of the Paper Caper

Mentor: Amanda Thompson

Riley Raynor, DeAnna Lockett

The Neglected Students: The Black Student
Experience in the Public School System

Mentor: Darren Surman

John Reynolds

OpenWage

Mentor: Kabe Moen

Rachel Robinson

GeoGIS: GIS-Based Geotechnical Engineering Data
Management

Mentor: Andrew Graettinger

Leah Rubinoff

A Meta-Analysis of the Association Between
Relational Aggression and Victimization, and the
Unique Associations with Peer Acceptance

Mentor: Dr. Deborah Casper

Andrew Rutledge

Funding the Future: Exploring Fundraising
Opportunities for the University of Alabama Honors
College

Mentor: Robert Witt

Brianna Santobello

Relational Aggression and Victimization During
Adolescence: A Meta-Analysis of Their Associations
and Gender Differences

Mentor: Deborah Casper

Session 4 – 3 PM-4:30 PM

Arts & Humanities, Business, Computer
Science, MIS & Cyber, Fine Arts, Education

Kaitlyn Sarao

Restitching History: A Contemporary take on designs
of the Past

Mentor: Brian Taylor

Emily Scott

Fancy Free When Times Were Not

Mentor: Lawrence Jackson

Alex Sents, Julia Sponholtz

Absorption and COMT

Mentor: Christopher Lynn

Carter Shelton

The Evolution of Technology and Its Impact on
Patient Outcomes in Healthcare

Mentor: Kimberly Stowers

Jake Sinacori, Taylor Bowman, Forrest Browne

Klaro Aqua Water Filtration Business Proposal for
Mexico

Mentor: Kimberly Williams

Jessica Smith

Validation of Confederate Behavior in the Contextual
Assessment of Social Skills (CASS)

Mentor: Susan White

Michael Smith

Network Spillovers in Contests

Mentor: Paan Jindapon

Kailey Sonricker

Setting the Tone for Executives: A look at how article
tone impacts the performance perception of male
vs. female CEOs

Mentor: Vishal Gupta

Sarah Kimball Stephenson

Analyzing the Significance of Emily Dickinson's Marks
and Manuscripts

Mentor: Jason Pontillo

Sarah Beth Strickland

Empowerment and Entrepreneurship as Means of
Improving Overall Well-Being of Women

Mentor: Gina Simpson

Andrew Sudol

Cuba's New Real Estate Market and Its Ramifications

Mentor: Quoc Hoang

Alli Swann, Hannah Clayton, Jared Folden

Cultivating Leadership and Community in Alabama's
Black Belt

Mentor: David Bolus

Aislinn Tansey

Forensic Evaluators' Opinions of Competence to
Proceed

Mentor: Lauren Kois

Kailyn Thomas

Design Exhibition: In Honor of Hedy Strnad

Mentor: Brian Taylor

Kyle Van Frank

Blended Cultures: The Story of Tap Dancing America

Mentor: Stacy Alley

Pang Vang

Hedy's Flower Dress

Mentor: Brain Taylor

Caneel VanNostrand, Kayla Merritt

Kitschy Packaging: How Consumer Expertise and
Product Packaging Impact Perceptions

Mentor: Clay Voorhees

John Martin Weed

Mapping the Digital Divide

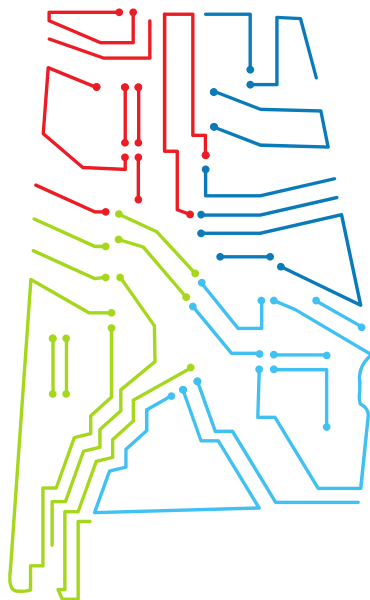
Mentor: Darren Surman

Session 4 – 3 PM-4:30 PM
Arts & Humanities, Business, Computer
Science, MIS & Cyber, Fine Arts, Education

Kira Wence, Elisabeth Pettibone
Evaluating Primary Care Medical Residents in
Psychiatry Rotations: Improvements
Mentor: Nathan Culmer

Eliza Witherspoon
Community Analysis Before Federal Scrutiny: The
Effectiveness of a Head Start Education
Mentor: Darren Surman

Zachary Ziegenhorn
A Proposal for Research on How LGBTQ Youth Are
Impacted by the School-To-Prison Pipeline
Mentor: Darren Surman



POWERING INNOVATION.

At Alabama Power, the most important thing we power is progress. We work with state and local allies to champion innovators that will help energize our state. That is the power to propel business and create opportunity. Making our state a great place to work and live is one more way we're helping elevate Alabama. [🐦 f AlabamaPower.com](#)

**Alabama Power is proud to support the students of
The University of Alabama®**

© 2019 Alabama Power Company



THANK YOU, FROM THE OFFICE FOR UNDERGRADUATE RESEARCH!

Every year, we've watched this conference grow, allowing more and more undergraduates at The University of Alabama to present their research and learn how to become better researchers and presenters. This wouldn't be possible without the help of volunteer judges and workers, students themselves, and helpful sponsors. Thank you on behalf of the Office for Undergraduate Research for taking part in the Undergraduate Research and Creative Activity Conference!

For more information on the Office for Undergraduate Research,
please visit
undergraduateresearch.ua.edu.

THE UNIVERSITY OF
ALABAMA[®]

Research &
Economic Development
Office for Undergraduate Research