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University of North Alabama Undergraduate Research

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Research Days 2017

Student researchers from each college shared their work with the university and the community April 10-12

Thanks to everyone who attended Research Days 2017 and helped make the event a success! In all more than 600 students, faculty, and staff attended events. “We were extremely pleased with the turnout. We streamlined the schedule so all poster presentations were given in the University Center on Monday and all oral presentations were given in the Stone Lodge on Tuesday, which helped boost attendance,” said Dr. Lisa Keys-Mathews, director of the Quality Enhancement Plan.

There were 33 oral and poster presentations and 17 Three Minute Thesis presentations. More than 220 students, faculty, and staff attended poster sessions and approximately 70 students, faculty, and staff attended and participated in oral presentations. One hundred and ten attended the 3MT University-Wide Finals Competition.

In addition to the university-wide presentations, Sociology held a well-attended departmental symposium on Wednesday in ThinkSpace with more than a dozen student presenters. Also on Wednesday a Fulbright Scholarship information session was held in The Loft at noon led by Dr. Joy Borah, associate professor of political science.

Research Days by the Numbers

On the Cover

Professors Ryan Zayac and Larry Bates discuss research with presenters Joshua Brookover and Tia Crowder. Do They Care? An Investigation into Misinformation Awareness on Facebook in 18-19 Year Old College Students was one of the poster presentations during Spring 2017 Research Days. UNA photo by Shannon Wells.

On the Cover

Christie Seltmann, an HPER student from UNA, won the Southeast American College of Sports Medicine Undergraduate Award.

Inside this issue

UNA graduate Sarah Schiavone has won a prestigious National Science Foundation Fellowship Award.

See the presenters, their mentors, and presentation titles from Research Days 2017, listed inside.

Research is formalized curiosity. It is poking and prying with a purpose.

—Zora Neale Hurston

Continued on page 3
National Science Foundation Fellowship Award Winner

Sarah Schiavone, a graduate of UNA’s social work and psychology programs, is completing her first year of graduate studies at the University of Kentucky. Sarah is a former winner of both UNA’s 3-Minute Thesis People’s Choice Award and UNA Research Day Poster competition. She recently was awarded a prestigious National Science Foundation Fellowship Award.

In February at Higher Education Day in Montgomery, Shannon Hogan, psychology student, presented her research entitled Identifying Relationships between Psychological Well-being and Inmate Program Participation. Other student authors include Alexandra Priester, Winder Prado, Sydney Miller, and Allison Bergner. Dr. Richard Hudiburg, chair and professor of psychology, and Dr. Larry Bates, professor of psychology, supervised this research. Shannon also presented this research in March at the 2017 annual meeting of the Eastern Psychological Association in Boston, Mass.

UNA had three other posters at Higher Education Day illustrating the diverse research being conducted at the university:

Ryan Rogers presented Forecasting Zika Virus Disease in Brazil: A Comparative Analysis Utilizing Wikipedia and Google Data Trends. His faculty mentors are Dr. Lee Raney and Dr. Jill Stupiansky, Mathematics, and his student co-authors include Joseph Schaefer, Matthew Cooper, and Erin Cosby.

Katie Kelsoe presented Going Green in the Residence Hall; An Investigation into Recycling Behavioral Patterns of Students in Mattelou Hall and Ways to Positively Effect their Behaviors. Her

The University of Memphis was the site of the 31st Annual National Conference on Undergraduate Research April 6 – 8, 2017 sponsored by the Council on Undergraduate Research. UNA was well-represented at the prestigious conference, with presentations by Tyler Delano (Mentor: Dr. James Jerkins, CSIS; Jason Floyd (Mentor: Dr. Lisa Ann Blankinship, Biology); Hannah Hopkins (Mentor: Dr. James Jerkins, CSIS); Katelyn Marie Payton-Page (Mentor: Dr. Cindy Stenger, Mathematics); and two presentations by Mark Pettit (Mentors: Dr. Amber Paulk and Dr. Andrea Hunt, Sociology and Family Studies). Pictured: Dr. Jerkins, Hannah Hopkins, Katelyn Marie Payton-Page, Dr. Stenger, and Tyler Delano.

(For more News Briefs, see page 8.)
vice president for Academic Affairs, and Dr. Matthew Price, director of Premier National and International Awards and Learning Support.

Students from several classes attended all sessions as a part of a class assignment. “We really appreciate faculty members who send their students to events with assignments. This is a great way to get students who are new to research involved and allows them to see what students are doing. This assignment just might get them interested in research,” said Dr. Keys-Mathews.

Research Days 2018 is scheduled for April 24-26. Mark your calendars now to attend, and please put Research Days on your Spring 2018 syllabi.

(Research Days by the numbers)
Continued from page 1)

Faculty and community leaders served as judges for the Three Minute Thesis (3MT) Finals Competition on Monday, April 10, in the George S. Lindsey Theatre. First, Second, and Third place winners, as well as People’s Choice Award, were selected and will receive $500, $300, $150, and $50, respectively.

These are the 3MT winners:

First Place: Mark Pettit, Sociology and Family Studies, Alumni’s Post-Graduation Outcomes: Does Participation in Undergraduate Research Make a Difference? Faculty Mentor, Dr. Amber Paulk.

Second Place: Michelle Veach, Secondary Education, Mathematics, Home Schooled Students Who Want to be Teachers. Faculty Mentor, Dr. Gary Padgett.

Third Place & People’s Choice: Shannon Williams, Nursing, Dementia and Music Therapy. Faculty Mentor, Dr. Angela Jones.

(For more 3MT Coverage, see page 6.)
Research Days Presentations

Poster Presentations
9:00 a.m. to 10:30 a.m., Atrium, GUC

Carson Hagood • Nursing
Does Practice Make Perfect? A Mixed Methods Exploration of Skill Efficacy, from Sim Lab to Clinical
Faculty Mentor: Mr. Will Brewer • Nursing

Taylor Anders • Criminal Justice
Title IX Training: Does it Impact College Students’ Rape Myth Acceptance and Bystander Attitudes?
Faculty Mentor: Dr. Amber Paulk • Sociology

Kaitlyn Foster • Sports Management
Emotional Labor, Teacher Burnout, and Turnover Intention in High-School Physical Education Teaching
Faculty Mentor: Dr. Ye Hoon Lee • Sports Management, HPER

Jennifer Adams, Alexandria Scott Nix, Stormie Perea, Whitney Hardwick • Nursing
The Influence of Personal Electronic Devices by Healthcare Workers in the Hospital Setting on Infection Transmission
Faculty Mentor: Ms. Stephanie Mohr • Nursing

Brian Johnson • Biology
Oral Bacteria Comparison between Healthy and Abscessed Patients
Faculty Mentor: Dr. Lisa Ann Blankinship • Biology

Emily Ownby, Elizabeth Savage • Elementary Education
Examining the Effects of Individual Goal Setting on Motivation, Engagement and Reading Achievement
Faculty Mentor: Dr. Lorie Johnson • Elementary Education

11:00 a.m. to 12:30 a.m., Atrium, GUC

Sydney Miller • Psychology
Disability Accommodation Requests: Prevalence and Preference of Various Review Processes at Postsecondary Institutions
Faculty Mentor: Dr. Ryan Zayac • Psychology

Bailey Plunket • Therapeutic Nutrition
Comparing the Risk of Micronutrient Deficiencies in Roux-en-Y Gastric Bypass and Sleeve Gastrectomy Patients
Faculty Mentor: Dr. Jill Englett • Human Sciences, Hospitality, and Design

Erica Lynn Cervi • Therapeutic Nutrition
Comparing University of North Alabama Student’s Fruit and Vegetable Consumption with American College Health Assessment Results
Faculty Mentor: Dr. Jill Englett • Human Sciences, Hospitality, and Design

Christie Seltmann won the Southeast American College of Sports Medicine Undergraduate Award during the February 16-18 conference in Greenville, S.C. Her research (Effects of a High Fat Low Carbohydrate Diet on Hydration Markers in Male Runners) was part of an independent study she completed in Fall 2016.

Seltmann graduated from UNA in December; she majored in Health, Physical Education, and Recreation with a concentration in Fitness Management. She is currently in the masters program at UNA for Health and Human Performance.

According to the SEASCM website over 266 abstracts for the conference were submitted.
Research Days Presentations  
(Posters, Continued)

Joanna Savery • Therapeutic Nutrition  
*Among Women of Child Bearing Age Does a Dairy Free Diet Versus Dairy in the Diet Reduce the Risk of Ovarian Cancer?*  
Faculty Mentor: Dr. Julie Tate • Human Sciences, Hospitality, and Design

Taylor Hjelm • Therapeutic Nutrition  
*Progress towards Clinical Use of the Artificial Pancreas*  
Faculty Mentor: Dr. Jill Englett • Human Sciences, Hospitality, and Design

Savanah Sweet • Culinary, Nutrition, and Hospitality Management  
*Cystic Fibrosis and the Benefits of Vitamin D Supplement*  
Faculty Mentor: Dr. Jill Englett • Human Sciences, Hospitality, and Design

Jessica Kelso • Culinary Arts and Food Service Management  
*In Adult Patients with Pancreatitis, does Enteral Nutrition, Compared to Parenteral Nutrition, Decrease the Risk of Infection and Mortality?*  
Faculty Mentor: Dr. Jill Englett • Human Sciences, Hospitality, and Design

Lindsey Carpenter, Starkey-Morgan Ludlam, Kelsey Murphy • Elementary Education  
*Examining Teacher and Student Attitudes About Student Portfolio Assessments and Student-led Conferences*  
Faculty Mentor: Dr. Lorie Johnson • Elementary Education

Joshua Brookover, Tia Crowder • Psychology  
*Do They Care? An Investigation into Misinformation Awareness on Facebook in 18-19 Year-Old College Students*  
Faculty Mentor: Mr. Derek Malone • Collier Library

Sarah Beth Looney • Secondary Education  
*Evolution of Teacher Preparation*  
Faculty Mentor: Dr. Leah Whitten • Secondary Education

Morgan Hastings • Geographic Information Science  
*Historic Cemetery Preservation*  
Faculty Mentor: Dr. Greg Gaston • Geography

Chandon Hines • Exercise Science  
*5-km Time Trial Reliability of a Non-motorized Treadmill and Comparison of Physiological and Perceptual Responses Versus a Motorized Treadmill*  
Faculty Mentor: Dr. Eric O’Neal • HPER

Karlie Roberson • Environmental Biology  
*Ecosystem Services of Franklin County*  
Faculty Mentor: Dr. Jonathan Fleming • Geography

Oral Presentations

10:30 a.m. to 11:30 a.m., Stone Lodge

Breanna Littrell • Biology  
*Antibiotic Resistance: Plasmid Transfer Among Bacterial Species*  
Faculty Mentor: Dr. Lisa Ann Blankinship • Biology

Mark Pettit • Psychology  
*An Examination of the Relationship Between the Sexual Objectification of Women in Hip Hop and the Expectations for Romantic Relationships*  
Faculty Mentor: Dr. Andrea Hunt • Sociology

Tyler Delano • Computer Science  
*When is an Algorithm Bias-Free?*  
Faculty Mentor: Dr. James Jerkins • CSIS

Allison House • Criminal Justice  
*The Relationship Between Physical Attractiveness and Deviant Behavior: an Extension of General Strain Theory*  
Faculty Mentor: Dr. Christopher Purser • Criminal Justice

2:30 p.m. to 4:00 p.m., Atrium, GUC

Jason Floyd • Biology  
*Forensic Sample Digestion: What Microbes are Eating Human Proteins?*  
Faculty Mentor: Dr. Lisa Ann Blankinship • Biology

Shannon Hogan • Psychology  
*Identifying Relationships between Psychological Well-Being and Inmate Program Participation*  
Faculty Mentor: Dr. Larry Bates • Psychology
Research Days (Oral Presentations, Continued)

1:00 p.m. to 2:00 p.m., Stone Lodge

Caleb Carr • Criminal Justice
Demographics, Political Ideology, and Police Use of Force
Faculty Mentor: Dr. Christopher Purser • Criminal Justice

Simon Bevis • Geospatial Science
Gerrymandering and Inequality
Faculty Mentor: Dr. Mario Mighty • Geography

Morgan Camp • Chemistry and Industrial Hygiene
Evaluation of Airborne Hazards in the Ammonia Making Process
Faculty Mentor: Dr. Leshan Kimbrough • Chemistry and Industrial Hygiene

Natasha Thomas • Social Work
Building Community Support for People Living with HIV/AIDS in the Religious South
Faculty Mentor: Dr. John Hodges • Social Work

Tia Crowder, Joshua Brookover • Psychology
Facebook use and racial prejudice
Faculty Mentor: Mr. Derek Malone • Collier Library

Rosie McClendon • Entertainment Industry
Entertainment Venues in Australia and New Zealand: the Sound Down Under
Faculty Mentor: Dr. Bob Garfrerick • Entertainment Industry

3:00 p.m. to 4:00 p.m., Stone Lodge

Nicole Gallups • Cellular/Molecular Biology and Professional Chemistry
Comparative Genomics in Hypothesis-Driven Research
Faculty Mentor: Dr. Tina Hubler • Biology

Three-Minute Thesis Presentations
Monday, April 10, 5:00 p.m., George S. Lindsey Theatre

Three-Minute Thesis is organized by the Department of Mathematics, with support from the College of Arts and Sciences, the College of Business, the College of Education and Human Sciences, the Anderson College of Nursing, and the Quality Enhancement Plan Office.

Presenters included:

Tabea Bock • Sales and Marketing
MBA Learning Preferences vs Nationality Differences
Faculty Mentor: Dr. Robert Armstrong

Derrick Coffman • Chemistry and Industrial Hygiene
Water-Quality of Ecuador Following the Earthquake of 2016
Faculty Mentor: Dr. Brent Olive

Candice Gonzalez • Secondary Education, Biology
Female STEM Major Selection
Faculty Mentor: Dr. Jessica S. Mitchell

Carson Hagood • Nursing
Does Practice Make Perfect? A Mixed Methods Exploration Skill Efficacy, From Sim Lab to Clinical
Faculty Mentor: Dr. Will Brewer

Baylee Harrell • Political Science and Psychology
How Church Attendance Shapes American’s Views on Social Welfare Expenditure
Faculty Mentor: Dr. Leah Graham

Hannah Hopkins • Computer Science and Information Systems
Is Dating Advice Received From Artificial Intelligence More Trustworthy Than Dating Advice Received From Other Humans?
Faculty Mentor: Dr. James Jerkins

Discover is a publication of the Office of the Quality Enhancement Plan. For more information: www.una.edu/qep; 256-765-4640; qep@una.edu.
Research Days (Three Minute Thesis, Continued)

Michelle Veach • Secondary Education, Mathematics
Home Schooled Students Who Want to be Teachers
Faculty Mentor • Dr. Gary Padgett

Emily Kennedy • M.S. Health and Human Performance
Perceptual Differences of Strength and Conditioning Coaches
Faculty Mentor: Dr. Lee Renfroe

Katelyn Payton-Page • Mathematics
Using Computer Programming to Improve the Ability to General Mathematical Concepts
Faculty Mentor: Dr. Cindy Stenger

Mark Pettit • Sociology and Family Studies
Alumni’s Post-Graduation Outcomes: Does Participation in Undergraduate Research Make a Difference?
Faculty Mentor: Dr. Amber Paulk

Samuel Schafer • Geographic Information Science
Diffusion of English Proficiency Among Spanish Speakers
Faculty Mentor: Dr. Mario Mighty

Dwight Self • Geographic Information Science
Smart Metering at Florence Electricity
Faculty Mentor: Dr. Mario Mighty

Christie Seltmann • M.S., Health and Human Performance
Effects of High Fat Low Carbohydrate Diet on Hydration Markers in Male Runners
Faculty Mentor: Dr. Eric O’Neal

Shannon Williams • Nursing
Dementia and Music Therapy
Faculty Mentor: Dr. Angela Jones

Jacqueline Willis • Art
The Significance of Visual Storytelling
Faculty Mentor: Professor Chiong

Sara Wilson • Social Work
Strategic Service Delivery: An Examination of the Use of Technology to Provide Social Services to Clients in Rural Areas
Faculty Mentor: Dr. John Hodge

Sociology / Alpha Kappa Delta Symposium
Roundtable Presentations, Wednesday, April 12, 11 a.m., ThinkSpace

FLPL Relationship Smarts: Family Life Education in Action, Mark Pettit and Alyson Bergner

The Effects of Behavioral Couples Therapy on Couples Experiencing Intimate Partner Violence, Cody Terry

Title IX Training: Does it Impact College Students’ Rape Myth Acceptance and Bystander Attitudes, Taylor Anders

Giving up the Microphone: The White Racial Framing of Race, Kimberly Lane

What Makes a Good Marriage?, Aleigha Edwards

A Comparison Between Marriages in Different Life Stages, Heather Stubbs

Misunderstanding of Hip Hop, Quintin Clark

Keeping it Real: Music Therapy and At-Risk Youth, Kandi Pike

Compromise and Communicate Before and During Marriage, Chloe Brownell

No Fate but What We Make: The Future of Affective Computing, Falon Yates

The Ugly Delinquent? The Relationship between Physical Attractiveness and Deviant/Delinquent Behavior, Allison House

Entertainment Venues in Australia and New Zealand: The Sound Down Under, Rosie McClendon
In January, Micheala Mashburn – a graduate of UNA’s psychology program – presented her research titled Perceptions of Severe Weather: An Examination of Potential Variables in Severe Weather Decision Making at the American Meteorological Society in Seattle, Wash. Other student authors included Ellen Mannon and Cole Thompson. Dr. Gabriela Carrasco, assistant professor of psychology, supervised this research.

Sydney Miller, psychology student, presented her research entitled, Disability Accommodation Requests: Prevalence, Advantages, and Disadvantages of Various Review Processes, at the 63rd annual meeting of the Southeastern Psychological Association in Atlanta, Ga. Other student authors included Carlisle Sandy. Dr. Ryan Zayac, associate professor of psychology, supervised this research.

In March, the research project of Halee Williams, a graduate of UNA’s psychology program, was presented by Haley Craig entitled, The Development of a Scale of Religious Attitudes: Measuring Fears, at the 63rd annual meeting of the Southeastern Psychological Association in Atlanta, Ga. Other student authors include Haley Craig, Andrew Kizzire, Graham Pugh, Mark Pettit, and Sydney Miller. Dr. Richard Hudiburg, chair and professor of psychology, and Dr. Larry Bates, professor of psychology, supervised this research.

Save the date! • APRIL 24-26, 2018 • RESEARCH DAYS
NEWS BRIEFS FROM AROUND CAMPUS

(Higher Ed Day, Continued)

Nine Therapeutic Nutrition students attended the Alabama Dietetic Association Annual Meeting in Birmingham in March. Eight of those students presented posters, making UNA the most well-represented school at the meeting. (There were two University of Alabama posters, one from Auburn, one from Sanford, and one from Montevallo.) Dr. Jill Englett accompanied the group, which included Erica Cervi, QEP grant recipient.

Savannah Watson has been accepted into the nationally-competitive National Science Foundation’s Research Experiences for Undergraduates (REU) program in Interdisciplinary Research Experience in Hyperspectral Imaging (IDRESHI) at the University of Northern Iowa in Cedar Falls, Iowa. This program will take place between May 22, and July 14, 2017. Savannah’s faculty mentor is Dr. Sunhui Sim, assistant professor of geography.

Coty Welch (right) received the Marble-Boyle Undergraduate Achievement Award in Geographic Science at the annual meeting of the American Association of Geographers (AAG) in Boston, Mass., April 5-9, 2017. Coty is the first UNA student to win this award. His mentor is Dr. Jonathan Fleming, assistant professor of geography.

Dan Watanyama presented his research at AAG as well. His paper is titled A Spatial Analysis of Climate Change Effects on Maize Productivity in Kenya. His faculty mentor is Dr. Mario Mighty, assistant professor of geography.

Emily Ownby and Elizabeth Leiner presented Examining the Effects of Individual Goal Setting on Motivation, Engagement, and Reading Achievement. Their faculty mentor is Dr. Lorie Johnson, Elementary Education.

Higher Education Day is an annual event to remind Alabama’s political leaders of the need to improve university appropriations.