Faculty Research Showcase
10-25-2020 • Live at 5 pm
undergraduateresearch.ua.edu

hosted by
The Office for Undergraduate Research

Artwork Program Cover by Rylie Curry
The Office for Undergraduate Research welcomes you to the second annual Faculty Research Showcase!

WHAT IS OUR?

The Office for Undergraduate Research offers programs and resources that can enrich a student’s undergraduate experience by offering a way to actively engage in learning outside of the classroom. Many undergraduate researchers work side-by-side with a faculty mentor who challenges them intellectually and can become a lifetime mentor. UA’s Office for Undergraduate Research can provide students with the information and resources necessary to engage in original inquiry, scholarship, and creative work during their undergraduate years at the Capstone. Likewise, OUR can connect faculty members to eager, innovative young researchers to assist in their labs.

WHAT IS ESP?

The Emerging Scholars Program is an exciting opportunity for students at The University of Alabama to get involved in research with a faculty mentor in their chosen field. These research opportunities allow a student to gain experience that deepens his or her understanding in a field of study, to develop the necessary professional skills, to interact with a diverse group of other students and faculty members, and to learn appropriate methods and techniques for presenting professional research. ESP also benefits faculty by connecting them with students eager to learn and participate in research throughout their UA careers.
COLLEGES, DEPARTMENTS, AND OFFICES

COLLEGE OF ARTS AND SCIENCES
- American Studies
- Anthropology
- Art and Art History
- Biological Sciences
- Chemistry and Biochemistry
- English
- Modern Languages and Classics
- Physics and Astronomy
- Psychology
- Psychology and CYDI

COLLEGE OF ENGINEERING
- Chemical and Biological Engineering
- Computer Science
- Electrical and Computer Engineering
- Mechanical Engineering
- Metallurgical and Materials Engineering
- Civil, Construction, and Environmental Engineering

COLLEGE OF COMMUNICATION AND INFORMATION SCIENCES
- Journalism and Creative Media

COLLEGE OF EDUCATION
- Curriculum and Instruction
- Special Education and Multiple Abilities
- Department of Educational Studies in Psychology, Research Methodology, and Counseling

COLLEGE OF HUMAN ENVIRONMENTAL SCIENCES
- Clothing, Textiles, and Interior Design
- Human Nutrition
- Hospitality Management

CAPSTONE COLLEGE OF NURSING

ALABAMA TRANSPORTATION POLICY CENTER

OFFICE FOR UNDERGRADUATE RESEARCH
1. DR. SHANLIN PAN
College of Arts and Science: Chemistry and Biochemistry
Shanlin Pan Lab
Developing functional low-dimension metallic and semiconductor electrode materials with synergistic functions for sunlight harvesting, conversion, and storage into chemical fuels.
span1@ua.edu

2. DR. RAJESH KANA
College of Arts and Science: Psychology
Cognition, Brain, and Autism Laboratory (www.cbra.ua.edu)
Neurobiology of Autism Spectrum Disorders.
rkkana@ua.edu

3. DR. ALEXEY VOLKOV
Engineering: Mechanical Engineering
Computational Mechanics Group
Computation mechanics for material processing
avolkov1@ua.edu

4. DR. TRACEY S. HODGES
College of Education: Curriculum and Instruction
Writing Instruction in Elementary and Middle Schools Grades:
How we measures writing achievement, motivation, and instruction.
thodges@ua.edu

5. DR. YUSUF AKAMOGLU
College of Education: Special Education and Multiple Abilities
Telepractice Lab
Supporting Families with Children with Autism via Telepractice: Reaching Families Online.
yakamoglu@ua.edu

6. DR. PAUL ALLISON
College of Engineering: Mechanical Engineering
Manufacturing at the Point-of-Need (MaPN) Initiative
Multidisciplinary basic and applied research programs necessary for a sustainable approach for advancement.
pallison@eng.ua.edu

7. DR. YOROU WANG AND HALIM LEE
Department of Educational Studies in Psychology, Research Methodology, and Counseling
Micro-Facial Expression (MET) Lab
Understanding students’ emotions when they are conducting different kinds of learning tasks with real time emotion reaction recognition.
yorou.wang@ua.edu
8. **DR. KELLY E. SHANNON-HENDERSON**  
College of Arts and Sciences: Modern Languages and Classics  
Undergraduate Research Opportunities in the Classics Program  
keshannon@ua.edu

9. **DR. EDWARD SAZONOV**  
College of Engineering: Electrical and Computer Engineering  
Computer Laboratory of Ambient and Wearable Systems  
esazonov@eng.ua.edu

10. **DR. LAUREN KOIS**  
College of Arts and Sciences: Psychology  
Collaborative Law and Social Sciences (CLASS) Laboratory  
Forensic psychology research.  
lekois@ua.edu

11. **DR. LINGYAN KONG**  
College of Human Environmental Sciences: Human Nutrition  
Food biomacromolecules in nutrition and nanotechnology.  
lkong@ches.ua.edu

12. **DR. ELLIOT PANEK**  
College of Communication and Information Sciences: Journalism and Creative Media  
Alabama Reddit Research Group  
We study the social dynamics of the social news platform Reddit.  
www.arrg.ua.edu epanek@ua.edu

13. **DR. LIBO TAN**  
College of Human Environmental Sciences: Human Nutrition and Hospitality Management  
Tan Lab  
Bioavailability, Pharmacokinetics, and Biological Activities of Micronutrients and Phytochemicals.  
ltan@ches.ua.edu

14. **DR. JIAQI GONG**  
College of Engineering: Computer Science  
Brain Research Across The Sensor-Accelerated Intelligent Learning (SAIL) Lab  
The convergence of human and artificial intelligence.  
jiaqi.gong@ua.edu

15. **DR. MACARENA SUÁREZ PELLICIONI**  
College of Education: Educational Studies in Psychology  
Brain Learning, and Education Lab  
Educational Neuroscience.  
mspellido@ua.edu
16. DR. SHEUNGYUN YEO
College of Education: Curriculum and instruction
Dynamic Math Lab
Dynamic digital tools for elementary mathematics.
syeo@ua.edu

17. MARCOS SANTANDER
College of Arts and Sciences: Physics and Astronomy
Multimessenger Astrophysics Lab
Multimessenger studies of high-energy astrophysical sources, astrophysics instrumentation development.
jmsantander@ua.edu

18. DR. CAITLIN HUDAC
College of Arts and Sciences: Psychology
Brain Research Across Development (B-RAD) Lab
Studies brain development in infants, children, and adults with and without neurodevelopmental disorders (e.g. autism, intellectual disability).
cmhudac@ua.edu

19. DR. NILESH KUMAR
College of Engineering: Metallurgical and Materials Engineering
Mechanical Properties of Materials Lab
Establishing correlation among processing, microstructure, and mechanical properties of metallic materials for transportation and power generation industries.
nkumar@eng.ua.edu

20. DR. MARCO BONIZZONI
College of Arts and Science: Chemistry and Biochemistry
The Bonizzoni Lab
Analytical applications of non-covalent interactions.
marco.bonizzoni@ua.edu

21. DR. ELIZABETH NARANJO HAYES
College of Arts and Science: Modern Languages and Classics
The sociophonetics of 3 Hot Latin Music
Artists from Medellín, Colombia: J Balvin, Karol G, and Maluma.
enhayes@crimson.ua.edu
22. Dr. Holly Horan  
College of Arts and Sciences: Anthropology  
Maternal and Infant Health Research;  
Improving perinatal/maternity care in Alabama and Puerto Rico.  
hhoran@ua.edu

23. Dr. James W. Harris  
College of Engineering: Chemical and Biological Engineering  
Harris Laboratory for Heterogeneous Catalysis Research.  
james.harris@eng.ua.edu

24. Dr. Shameka L. Cody  
Capstone College of Nursing  
Insomnia and substance use in people living with HIV.  
slcody@ua.edu

25. Dr. Jun Liu  
College of Engineering: Civil, Construction and Environmental Engineering  
NextGen Transportation Lab  
Modeling future transportation systems with electric vehicles, autonomous vehicles and personal air vehicles.  
jliu@eng.ua.edu

26. Dr. George Daniels  
College of Communication and Information Sciences: Journalism and Creative Media  
Black Newspapers, Black Males and Media  
gdaniels@ua.edu

27. Dr. Marcy L. Koontz  
College of Human Environmental Sciences: Clothing, Textiles, and Interior Design  
The Fashion Archive Lab  
Interdisciplinary and inclusive approach to the study, preservation, and presentation of fashion focusing on integrating the past, present, and future ethos of fashion through cross-curricular lens study.  
Marcy.Koontz@ua.edu

28. Dr. Mairin Odle  
College of Arts and Science: American Studies  
AMS Lab:  
Exploring Native Alabama and documenting tribal treaties and regional land sales.  
lmodle@ua.edu

29. Dr. Sergei Gleyzer  
College of Arts and Sciences: Physics and Astronomy  
Data Science Laboratory  
New Physics Discovery with Machine Learning.  
sgleyzer@ua.edu
30. DR. AMBER BUCK
College of Arts and Science:
Department of English
Composition, Rhetoric, and English
Studies Program
Audience on social media platforms.
ambuck@ua.edu

31. DR. ALEXIS MCGEE
College of Arts and Science:
Department of English
Composition, Rhetoric, and English
Studies Program
Black feminist rhetorician and advocate of
music, language, and pedagogy.
armcgee1@ua.edu

32. DR. CINDY TEKOBBE
College of Arts and Science:
Department of English
Composition, Rhetoric, and English
Studies Program
Decolonizing digital rhetorics, literacies, and
identities.
cindy.tekobbe@ua.edu

33. SARAH MARSHALL M.F.A.
College of Arts and Science:
Art and Art History
Studio Art Printmaking
Fine art and craft theory and
applications for intaglio, relief, screenprint,
lithographic, and experimental printmaking
methodologies.
smarsh@ua.edu

34. DR. MICHAEL R. MCKAIN
College of Arts and Sciences:
Biological Sciences
McKain Lab
Genomic adaptations of flowering
plants.
Mrmckain@ua.edu

34. PROFESSOR BRANDON KIM
College of Arts and Sciences:
Biological Sciences
Kim Lab
Host-pathogen interactions between meningeal pathogens and the blood-brain barrier.
bjkim4@ua.edu

35. STEVEN POLUNSKY
Alabama Transportation Policy
Research Center
Transportation Policy Research
Center
Federal, state, and local laws, ordinances,
and policies affecting transportation.
polunsky@ua.edu

36. OFFICE FOR UNDERGRADUATE RESEARCH
DR. KIM BISSELL AND JACKIE HARRISON
The Emerging Scholars Program
Undergraduate Research and
Creative Activity Conference
(URCA)
OUR is assists undergraduates to connect
with faculty for research and
presentations at academic conferences.
UndergraduateResearch.ua.edu
UndergraduateResearch@ua.edu
Thank You for Attending the Faculty Research Showcase!

On behalf of the Office for Undergraduate Research, thank you for helping make the Faculty Research Showcase a success! This event would not be possible without faculty participants and student support. OUR is active throughout the year as we assist undergraduates in finding research opportunities across campus. Your participation helps connect students to life-changing experiences.

Follow us on social media to keep up with the rest of OUR's activities throughout the year!

Facebook: Facebook.com/UAOUR
Twitter: @UA_OUR
Instagram: @UAOUR

For more information about ESP or any of OUR's programs, visit UndergraduateResearch.ua.edu or contact Jackie Harrison at jharrison@ua.edu.