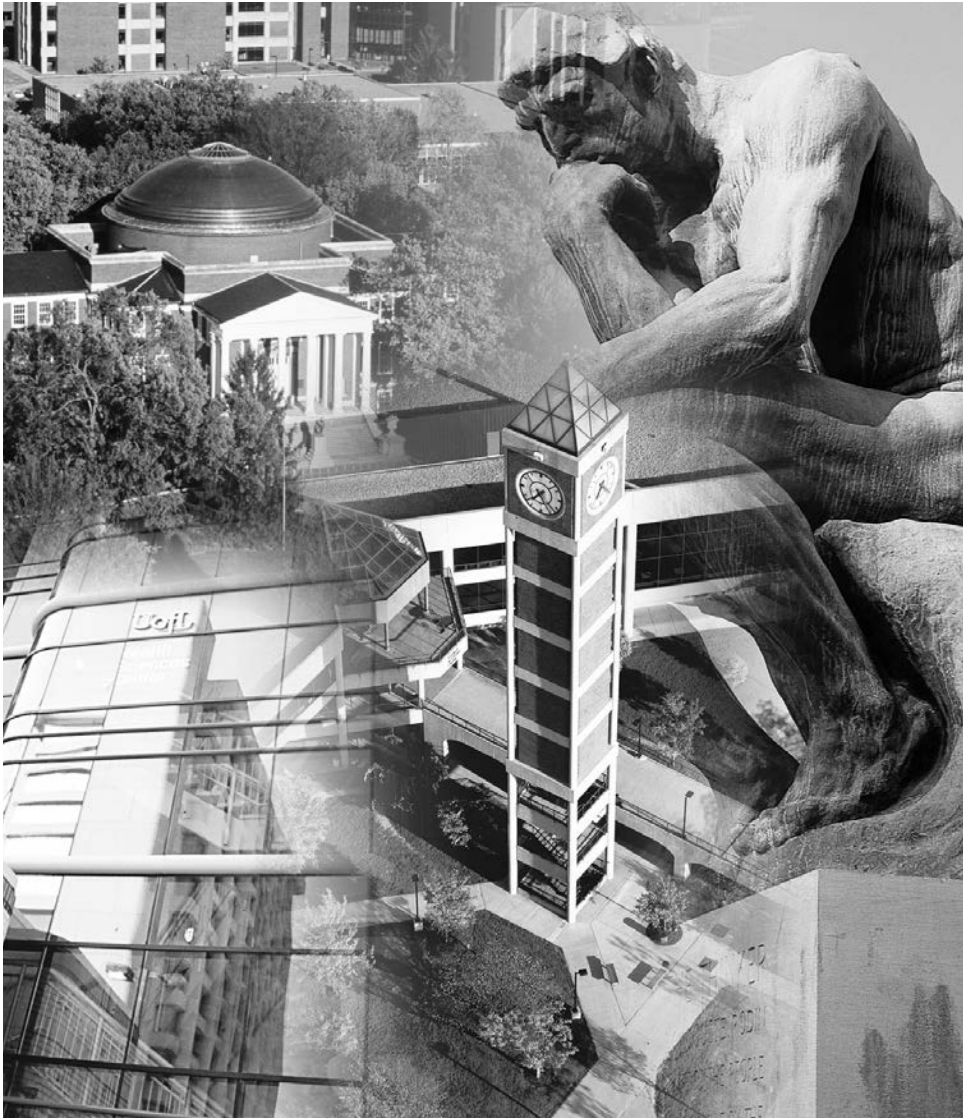




FALL 2020 CELEBRATION

December 12, 2020

UNIVERSITY OF
LOUISVILLE[®]
GRADUATE SCHOOL



Fall 2020 Celebration

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UNIVERSITY OF
LOUISVILLE
GRADUATE SCHOOL

The Academic Regalia

The tradition of gowns and hoods being worn as academic regalia at graduation ceremonies stems from a distinctive style of academic dress that emerged in the first universities in Europe in the twelfth century. The style was influenced by the fact that masters and scholars at that time were usually members of the clergy. For example, in 1222 at the Council of Oxford, the Archbishop of Canterbury ordered English clerics to wear the *cappa clausa* — a closed, flowing gown based on a lay fashion of the period. As a result, this garment came to be regarded as academic dress for university masters who, as clerics, wore it. Later, when the clergy neglected the rule in general, the garment was recognized as an exclusively academic one.

The *pileus*, a common headdress of medieval laymen, was adopted by the Church at the Synod of Bergamo (1311) and became typical headwear at the universities. The caps and tams worn by faculty are a direct descendant of the *pileus*. The *pileus quadratus*, or square cap, is today's mortarboard worn by most graduates.

The hood as an academic vestment originated from the cowl worn by monks in the Middle Ages as protection against inclement European weather. It was worn over a short cape known as a *tippet*, and had a tail, known as a *liripipe*, which was used to pull the hood over the head and then was wrapped around the throat to keep the hood in place. Today the *tippet* remains as part of the hood and, although the hood is never worn on the head, the *liripipe* is retained as the funnel-shaped hood.

The tradition of wearing the hood hanging down the back is said to be derived from the practice of medieval monks, many of whom were solicitors in the King's Court, who used the bag-like hanging hood as a "contribution bowl" for clients and well-wishers. Early scholars used the hood to collect the fees for lectures.

Colors have long been significant in denoting different academic disciplines and, more recently, levels of scholastic achievement. Standard gowns of different shape, length and sleeve design indicate the degrees of Bachelor, Master and Doctorate. The robes of the President, Provost, Chair of the Board of Trustees, and Grand Marshal represent the office, not the degree.

In the hoods of the faculty, the color of the border indicates the type of degree, while the lining of the hood shows colors of the university that bestowed the degree.

Hoods and Tassels

The distinctive colors in the hoods and the tassels of the caps accord with the following:

Audiology.....	Spruce Green
Business	Drab
Dentistry	Lilac
Education	Light Blue
Engineering	Orange
Information Sciences	Gold
Law	Purple
Liberal Arts	White
Library Science.....	Lemon
Medicine.....	Kelly Green
Music.....	Pink
Nursing	Apricot
Philosophy	Dark Blue
Public Administration	Peacock Blue
Public Health.....	Salmon Pink
Science	Gold
Social Work	Citron

The Guy Stevenson Award for Excellence in Graduate Studies

Jamie Young

Ph.D. Pharmacology and Toxicology

Mentor: Professor Lu Cai

The Guy Stevenson Award for Excellence in Graduate Studies honors a former dean of the Graduate School and is presented to an outstanding doctoral degree recipient who has demonstrated excellence in both scholarship and leadership within the discipline, and has made significant contributions to teaching and/or service. Jamie Young is the recipient of this year's Stevenson award and as such, serves as the Graduate School's outstanding student and will deliver a speech for the virtual Hooding and Commencement ceremonies.

Jamie Young earned a Master's degree with a Dean's Citation from the Department of Pharmacology and Toxicology at the University of Louisville and Bachelor's degree (cum laude), from the University of Maine at Farmington. Jamie earned her Master's degree for her work on developing a model of the effects of whole life exposers to environmental contaminants (arsenic and cadmium) on the development of adult diseases. Her doctoral work continued under the mentorship of Dr. Lu Cai and focuses on how cadmium exacerbates high fat diet induced liver disease and the potential therapeutic role of dietary zinc. During her tenure as a doctoral student in Pharmacology and Toxicology, she served as the student representative for the Ohio Valley Society of Toxicology, and is the most recent recipient of the K.C. Huang Outstanding Graduate Student award.

Jamie has been a highly successful graduate student earning a stellar grade point average and achieving much research success. Currently, she has published 12 journal articles, including four as first author along with 40 abstracts with 24 as first author. Jamie has presented 10 seminars including several at international conferences and as an invited speaker at international universities. She has earned grant support; earning a prestigious fellowship from the U.S. Environmental Protection Agency (EPA) and a prestigious T32 fellowship from the National Institute of Environmental Health Sciences (NIEHS).

Beyond the academic and research success, Jamie provides exceptional teaching and service to her field. While the Pharmacology and Toxicology program at the University of Louisville does not require teaching, Jamie seized on the available opportunities for teaching in the Department's Dental Hygiene Pharmacology course, and provided peer-to-peer mentoring whenever possible.

For service opportunities, Jamie is active in a number of professional societies. For the Society of Toxicology, the biggest and preeminent Toxicology society in the world, she served as the student representative to the Metals Specialty Section, the Chair for the

society's Graduate Student Leadership Committee programming sub-committee, and the society's Graduate Student Leadership Committee Chair. Her leadership efforts in these roles led to follow-on service opportunities in student-run efforts in the Environmental Mutagenesis and Genomics Society and NIEHS's Superfund Research Program Conference. Jamie also extensively volunteered as a field research assistant for numerous expeditions with the Wise Laboratory of Environmental and Genetic Toxicology, Ocean Alliance, the Channel Islands Marine & Wildlife Institute, and the National Aeronautics and Space Administration (NASA).

Jamie has not had an easy path to her extraordinary success. She was the first in her family to earn an undergraduate degree, and she pressed on to earn a Master's, and soon a doctoral degree, overcoming challenges and interruptions along the way. Jamie is committed to excellence in research, service and teaching in her pursuit to combat global challenges in environmental health and disease.

Following graduation, Jamie will pursue a career as an independent researcher and plans to apply for a NIH Director's Early Independence Award (DP5 mechanism) and earn a subsequent faculty position (hopefully at the University of Louisville).

The John Richard Binford Memorial Award

Justin Smith

Ph.D. Chemistry

Mentor: Assistant Professor Sachin Handa

Justin Smith is the recipient of the John Richard Binford Memorial Award, which honors a former chairman of the Department of Psychology. This award recognizes a doctoral degree recipient who excels in scholarship, and has contributed to other areas within the discipline such as leadership, teaching, or service.

Hailing from Tonganoxie, KS, Justin attended the University of Kansas on a National Merit Scholarship. Drawn to the creative potential in chemistry, he was selected for the EU Atlantis Program, a year-long, chemistry-specific study abroad program split between Dublin City University and the University of Regensburg. He conducted research at each university, ultimately earning a German minor from KU and a dual B.S. in chemistry from UR (where he completed 29 credit hours of German, graduate-level chemistry, and research in one semester). Back at KU, he expanded his research experience in a chemical engineering lab; post-graduation, he worked as program assistant in KU's Office for Diversity in Science Training (ODST coordinates NIH programs increasing underrepresented-community participation in science), which included instructing a course on critical evaluation of scientific literature at Haskell Indian Nations University.

Justin began graduate studies at UC Santa Barbara working alongside then-postdoc Sachin Handa and followed him to UofL as his first graduate student. Early research explored aqueous micelles (formed from Handa Lab surfactant PS-750-M) as a green reaction medium. Organic solvents often are hazardous and responsible for most waste generated in a chemical process, whereas aqueous PS-750-M is mostly water, and PS-750-M is made from benign, sustainable building blocks. Publications in *Green Chemistry* (on polyfluoroarene sulfonylation) and *ACS Catalysis* (on nitroalkane arylation) helped establish PS-750-M as an alternative to problematic solvents which are challenging to replace. Throughout his graduate education, Justin was an active mentor for four undergraduates on new research projects (completely separate from his own research activities). He coauthored two reviews, and two additional reviews are currently being adapted from his Original Research Proposal and his dissertation's introductory chapter. Following his third year, he received the Department of Chemistry's Dorothy Gibson Memorial Fellowship.

Justin was afforded greater independence on later projects, three of which contained innovations of sufficient novelty and value to warrant internal disclosure for UofL patent consideration. One, published in *Nature Communications* and selected for Editor's highlight, involved a new type of polymeric photocatalyst. Justin persistently optimized polymerization conditions until the photocatalyst could be applied as

a coating on reaction vessels. These coated vessels were found to be suitable for "backside irradiation," a process with the potential to solve industrial scale-up, recyclability, and mixture opacity problems typical of photoredox catalysis. Another, which awaits publication, leveraged a new interpretation of longstanding literature to advance the concept and methodology of "sustainable halosequestration," which has the potential to make a variety of reactions greener, cheaper, and faster; halosequestrative conditions required one tenth as much catalyst, material cost, and time compared to earlier micellar conditions for nitroalkane arylation. The third project was reduced to practice but interrupted by COVID-19; in response, he began to independently develop COVID-19 therapeutic concepts, which he will publish prior to pursuing a postdoc and career in materials chemistry research.

The John M. Houchens Prize for Outstanding Dissertation

Robert C. Monsen

Ph.D. Biochemistry and Molecular Genetics

Mentor: Professor John Trent

Robert C. Monsen is the winner of the John M. Houchens Prize, which honors a former registrar of the university and is awarded to the doctoral student who presents the most meritorious dissertation for the current commencement.

Robert is from Henderson, Kentucky. There he graduated high school and enrolled as a pre-medicine biology student at the University of Southern Indiana at Evansville. After graduating with a B.S. in biochemistry, Robert was employed in the polymer industry. There he gained a strong interest in becoming an independent scientist after he experienced the interesting challenges and responsibilities faced by senior scientists working in research and development. This observation prompted his desire to obtain further training in science and his application to the graduate program in the department of Biochemistry and Molecular Genetics at the University of Louisville.

Robert's dissertation work was in an area of drug discovery and structural biology. He trained under the mentorship of Drs. John Trent and J. Brad Chaires. A major result of his dissertation research is the characterization of the DNA secondary structure at the human telomerase reverse transcriptase (hTERT) core promoter. The hTERT core promoter is a major regulator of telomerase expression. Telomerase, the hTERT gene product, is an enzyme that is re-expressed in more than 85% of cancers and imbues cancer cells with immortality. His results showed that this core promoter region forms a stack of three non-B DNA structures known as a G-quadruplexes. He subsequently demonstrated, using computational drug discovery methods and lab experiments, that it was possible to develop selective small molecules capable of stabilizing the hTERT G-quadruplex. Robert took his work further to show that these small molecules could down-regulate hTERT in breast cancer cell lines. In recognition of his work on the hTERT core promoter system, Robert received the Arno Spatola Endowment Graduate Research Fellowship from the Institute for Molecular Diversity & Drug Design (IMD3). Robert's work characterizing additional non-B DNA G-quadruplex structures with small-angle X-ray scattering has been recognized by the Argonne National Laboratory's Advanced Photon Source Group, which has allotted him more than \$20,000 worth of X-ray beam time for his proposed research. The Houchens Prize recognizes the potential impact of Robert's research on the field of cancer drug discovery. Robert's work characterizing unique DNA structures as drug targets has expanded our arsenal of tools for selectively killing cancer cells. Robert's work also benefits the broader research community by describing methods that others can apply to their own disease of interest in order to develop new drugs.

Robert is also invested in fostering the research curiosity of others. Robert enjoys mentoring younger students in science. He has been involved in judging science fairs, from the elementary to graduate school level, over the past five years. He has also mentored multiple graduate, undergraduate, and high school students, one of which won second prize for a subsequent poster presentation.

Robert plans to continue his research to further characterize higher-order, non-B DNA structures using the integrative structural biology platform he developed. He also plans to continue developing small molecules that were identified during his PhD dissertation research. Following postdoctoral training, he plans to establish himself as an independent researcher at an academic institution.

The Alice Eaves Barns Award for Outstanding Achievement in Master's Program

Sashauni Johnson
M.S.S.W. Social Work

Mentor: Assistant Professor Heather Storer

The Alice Eaves Barns Award is named in honor of Mrs. Alice Eaves Barns for her many years of outstanding service as a staff member of the former Graduate School, School of Interdisciplinary and Graduate Studies at the University of Louisville. This award recognizes a student who has displayed tenacity in the face of adversity while attaining excellence in both the classroom and outside endeavors. The award is given in recognition of outstanding achievement in a Master's Program. Sashauni Johnson is this year's recipient of the Barns award.

Sashauni Johnson was born in St. Catherine, Jamaica and migrated to the United States at the age of seven in pursuit of the American Dream. She is an alum of the University of Louisville and was enrolled in the 30-hour Advanced Standing MSSW program where she graduated in December 2020.

Sashauni has worked in the Social Work field for the entirety of her professional career, and has enjoyed working to meet the needs of her clients by connecting her clients with community resources that aim to increase their overall wellbeing and health. She was inspired to work in the social work field to be for others what she would have liked someone to have been for her.

In October 2020 Sashauni founded The Pretty Girl Foundation, which is a nonprofit organization that serves survivors of domestic abuse and intimate partner violence, a cause that is near and dear to her heart. In addition to being the director of this foundation, Sashauni works as an independent contractor in the city of Louisville. In this role, she serves children, families, and adults with open CPS cases.

After graduation, Sashauni plans to take the necessary steps to become a licensed therapist, and after licensure, will begin to provide mental health services to children, families, and adults who have experienced extreme trauma and childhood adverse experiences. It is Sashauni's hope that with her personal and professional experiences, she will be able to help her future clients attain a better standard of living by guiding them through the sometimes-difficult journey of healing.

Degrees - August and December 2020

Doctor of Nursing Practice and Their Faculty Mentors

Ruby M. Aebersold

Nursing

Associate Professor Mary DeLetter

Project: *Evaluating Family Satisfaction on an Advanced Certification Palliative Care Unit*

Katherine Barker

Nursing

Professor Whitney Nash

Project: *Hepatitis A Educational Program in Food Service Workers*

Elizabeth Ann Blandford

Nursing

Professor Becky Christian

Project: *Modifying the Visitation Policy within Adult Intensive Care Units to Improve Patient, Family and Nurse Satisfaction*

Katelyn Lee Brandel

Nursing

Assistant Professor Lynette Galloway

Project: *Strategies to Increase HPV Vaccine Uptake in Primary Care*

Patrick Scott Bucayu

Nursing

Assistant Professor Kimberly Meyer

Project: *The Revision and Education of the Traumatic Brain Injury Ventilation Protocol*

Madeleine Antoinette Chesney

Nursing

Assistant Professor Beverly Williams Coleman

Project: *Implementation of a Wellness Program for Emergency Department Medical Professionals*

Jessica Layne Duffy

Nursing

Assistant Professor Paul Clark

Project: *Family Presence During Resuscitation: Nurses' Perceptions of Their Self-Confidence*

Brittany Lauren Durbin

Nursing

Professor Whitney Nash

Project: *Preoperative Opioid Education: Total Knee and Hip Arthroplasty*

Harold Anthony Flood

Nursing

Assistant Professor Candace Harrington

Project: *Implementation of a Central Line Bundle in the Adult Long-Term Care Setting: A Quality Improvement Initiative*

Andrea Lee Gibson

Nursing

Professor Frances Hardin-Fanning

Project: *Expansion of a Food Insecurity Scale in Primary Care*

Niah Ann Gilmore

Nursing

Associate Professor Said Absusalem

Project: *Improving Patient Safety: Implementing the Chiulli, Thompson, & Reguin-Hartman Acuity Tool (CTRAT) on a Neuroscience Unit*

Sara Elizabeth Henderson

Nursing

Assistant Professor Luz Huntington-Moskos

Project: *Breathing Easier: Indoor Air Quality Education Program*

Jonathon Blake Hicks

Nursing

Associate Professor Mary-Beth Coty

Project: *Education Module for Serotonin Syndrome with 24-Hour Dose Monitoring Intervention*

Kevin Luke Houser

Nursing

Associate Professor Mary-Beth Coty

Project: *Implementation of a Safety Planning Intervention on an Inpatient Psychiatric Unit*

Sable Ciara Iglesias

Nursing

Assistant Professor Lynette Galloway

Project: *Nursing and Caregiver Satisfaction and the Implementation of a Discharge Education Roadmap for Newly-Diagnosed Pediatric Oncology Patients*

Adrienne Marie Warren Johnson

Nursing

Associate Professor Muna Hammash

Project: *HIV/HCV Screening Protocols in the Emergency Department*

Vanessa Lynn Johnson

Nursing

Assistant Professor Kimberly Meyer

Project: *The Impact of Estimated Weight vs. Accurate Weight on Ischemic Stroke Patients with tPA Intervention*

Miranda Renee Jones

Nursing

Assistant Professor Lynn Roser

Project: *Improving Peripheral Intravenous Maintenance Compliance to Decrease Intravenous Infiltration in a Pediatric ICU*

Cassandra Jane Lee

Nursing

Associate Professor Sara Robertson

Project: *Feasibility of Implementation of Evidence-Based Trained Service Dog Provider*

Mohammed Azam Mohiuddin

Nursing

Assistant Professor Elisabeth Volpert

Project: *Implementation of CCM Check Box in EHR*

Tiffanie Diane Mueller

Nursing

Assistant Professor Debra Anderson

Project: *An Educational Intervention on Nurse Provided Spiritual Care*

Tiffany Renee' Slaughter Newcomb

Nursing

Associate Professor Mary-Beth Coty

Project: *Alcohol Misuse and Abuse Among College Students: An Implementation of a Screening Program*

Casey Nicole Prestigiacomo

Nursing

Professor Frances Hardin-Fanning

Project: *The Effect of a Blood Pressure Education Intervention on the Knowledge and Self-Efficacy in Patient Care Associates*

Kiersten Anne Proctor

Nursing

Assistant Professor Cynethia Bethel-Jaiteh

Project: *Breastfeeding Education in the Postpartum Period*

Taylor Lorraine Purnsley

Nursing

Assistant Professor Kimberly Meyer

Project: *Early Initiation of Therapeutic Hypothermia in the Emergency Department*

Christopher Lee Reynolds

Nursing

Assistant Professor Paul Clark

Project: *Reducing Nurse Burnout in the Acute Care Setting*

Ashley Ann Ricketts

Nursing

Assistant Professor Catherine Batscha

Project: *Impact of a Single Mindfulness Education Session on Teachers' Perceived Stress Levels*

Ardis Meredith Roederer

Nursing

Assistant Professor Candace Harrington

Project: *Improving Delirium Management and Compliance on a Trauma/Surgical Universal Unit*

Rachel Lauren Schollaert-Culwell

Nursing

Assistant Professor Kimberly Meyer

Project: *Education and Implementation of the Clinical Opiate Withdrawal Scale (COWS) in the Acute Care Setting for Care Providers*

Erika Lyn Shell

Nursing

Assistant Professor Angie Malone

Project: *The Implementation of a Pediatric Bone Marrow Transplant Nurse Orientation: A Quality Improvement Initiative*

Kelly Rae Smith

Nursing

Assistant Professor Beverly Williams Coleman

Project: *The Effect of Palliative and Hospice Care Nursing Education to Improve Knowledge Among Nurses in Long-term Care*

Abigail Hagan Southall

Nursing

Associate Professor Sara Robertson

Project: *The Implementation of an Evidence Based Decision Aid to Improve Self-Efficacy of Critical Care Nurses in the Recognition of Need for Palliative Care in ICU Patients*

Megan McCleese Vitellaro

Nursing

Professor Whitney Nash

Project: *Improving the Rates of Smoking History Documentations in the Electronic Medical Record*

Nancy Lynn Wilding

Nursing

Associate Professor Sara Robertson

Project: *Emergency Nurse Practitioner Post-Graduation Certification*

Shannon Lee Williams

Nursing

Assistant Professor Catherine Batscha

Project: *A Quality Improvement Project to Determine the Impact of Education and Resources on Postpartum Depression Screening and Referral in Pediatric Primary Care*

Degree Awarded Posthumously

Kacy Lee Johnson

Nursing

Doctor of Education and Their Faculty Mentors

Kristy Marie Field

Educational Leadership and Organizational Development

Co-Chairs: Professor Kyle Ingle and Assistant Professor Deborah Powers

Dissertation: *Teacher Perceptions of Collegial Collaboration in an Academy Structure*

Nicole Michelle Fields

Educational Leadership and Organizational Development

Professor Mary Brydon-Miller

Dissertation: *The Many Facets of Trauma - High Need Index School Principals' Perspectives on Trauma-Informed Care*

Shawn Timothy Hinds, Jr.

Educational Leadership and Organizational Development

Professor Kyle Ingle

Dissertation: *Capacity Building: A Study of Career Academies and Student Career Self-Efficacy*

Kathryn Merges House

Educational Leadership and Organizational Development

Professor Kyle Ingle

Dissertation: *Student Perceptions of Personalized Learning in a Rural School District*

Faneshia McPherson Jones

Educational Leadership and Organizational Development

Co-Chairs: Associate Professor Jason Immekus and Professor Kyle Ingle

Dissertation: *Kindergarten Readiness and Grade 1 Mathematics Achievement*

Rajwinder Kaur

Educational Leadership and Organizational Development

Professor Mary Brydon-Miller

Dissertation: *Fostering African American Female Students' Sense of Belonging: A Digital Storytelling Participatory Action Research Approach*

Devon Mariah Woodlee

Educational Leadership and Organizational Development

Professor Kyle Ingle

Dissertation: *Inclusion of Classified Staff in the Implementation of Positive Behavior Interventions and Supports: A District Case Study*

Adam Nelson Stephens

Educational Leadership and Organizational Development

Professor Mary Brydon-Miller

Dissertation: *A Phenomenological Study of Kindergarten Teachers' Perceptions of Their Students in the Age of Kindergarten Readiness*

Doctor of Philosophy and Their Faculty Mentors

College of Arts and Sciences

Shadi Ahmad Mohammad Alnaanah

Physics

Co-Chairs: Associate Professor Serban Smadici and Professor Sergio Mendes

Dissertation: *Development and Applications of Condensed Phase Cavity Ring-Down Spectroscopy for Studies of Electrochemical and Interfacial Processes*

Alaa Mahmoud Alfaiakawi

Physics

Co-Chairs: Associate Professor Serban Smadici and Professor Byron Freelon

Dissertation: *A Structural Study of Correlated Materials: Incipient Mott Insulators and Low-Dimensional Systems*

Andrew John Bates

Urban and Public Affairs

Associate Professor Matthew Ruther

Dissertation: *Predictors of Urban Homeless Rates*

William Christopher Beckerson

Biology

Professor Michael Perlin

Dissertation: *Comparative Secretomics and Functional Analysis of Effectors Utilized by the Microbotryum Genus of Anther-Smut Fungal Pathogens, and Their role in Host-Specificity*

Saleema Mustafa Campbell

Pan-African Studies

Co-Chairs: Associate Professor Mawuena Kossi

Logan and Professor Theresa Rajack-Talley

Dissertation: *Mitigating Black Claustrophobia: Space, Trauma, and Healing Modalities in the Postcolonial Narrative*

Ma. Faye Charmagne Aquino Carvajal

Chemistry

Professor Richard Wittebort

Dissertation: *Investigating the Disorder and Compaction of Designed Minielastins using Nuclear Magnetic Resonance*

Md Emtias Chowdhury

Chemistry

Co-Chairs: Associate Professor Martin O'Toole

and Professor Craig Grapperhaus

Dissertation: *Design, Synthesis and Application of Janus Gold Nanoprisms for Directed Self-Assembly*

Grace Ellin Freundlich

Biology

Professor Sarah Emery

Dissertation: *Costs and Benefits of HIPV-mediated Eavesdropping under Field Conditions*

Jennifer Lee Hall

Applied Sociology

Professor Lauren Heberle

Dissertation: *The Sidewalk Less Traveled: Evaluating Changes in Community and Police Perception*

Amanda Gayle Harmon

Experimental Psychology

Professor Carolyn Mervis

Dissertation: *Language Ability and Concurrent Predictors of Pragmatic Communication in Children with Williams Syndrome or 7q11.23 Duplication Syndrome*

Jonathon Carl Holland

Applied Sociology

Associate Professor David Roelfs

Dissertation: *The Norms are More Guidelines than Actual Rules: Applying Isomorphism to Disability Accommodations in the Catholic Church*

Ekramul Islam

Urban and Public Affairs

Associate Professor Margath Walker

Dissertation: *Compassion or Neoliberal Governance: Critiquing the Discourse of Compassionate Louisville*

Eric Andrew Jordan

Applied Sociology

Co-Chairs: Assistant Professor Melanie Gast and

Associate Professor Karen Christopher

Dissertation: *Exploring Black "Saviors": A Content Analysis of Black Characters and Racial Discourses in Obama-era Film*

Sunita Khanal

Biology

Professor Michael Perlin

Dissertation: *Genes Involved in Nitrogen Assimilation in Ustilago Maydis*

Pom Lal Kharel

Chemistry

Professor Francis Zamborini

Dissertation: *Photoelectrical and Photoelectrochemical Characterization of the Materials Used in Dye-Sensitized and Perovskite Solar Cells*

Katherine Elizabeth Ray King

Biology

Co-Chairs: Associate Professor Linda Fuselier and Professor Paul Ewald

Dissertation: *On the Straight and Narrow: How Cultural Beliefs about Sex/Gender Manifest in College Science Learning Environments*

Kirsten Denise Leaberry

Clinical Psychology

Associate Professor Paul Rosen

Dissertation: *Reactive and Regulative Temperament Dimensions, Emotion Regulation, and Concurrent Internalizing and Externalizing Pathology Among Youth with ADHD*

Theodore Christopher Malone

Applied Sociology

Professor Patricia Gagne

Dissertation: *Getting Up: An Ethnography of Hip Hop Graffiti Writers, their Art, and Perceptions of Society's Reactions*

Nicholas Courtney McLeod

Pan-African Studies

Co-Chairs: Professor Tyler Fleming and Professor Theresa Rajack-Talley

Dissertation: *Practicing Pan-Africanism: West Indians and Governance in Kwame Nkrumah's Ghana*

Judy Mier-Chairez

Clinical Psychology

Co-Chairs: Professor Bernadette Walter and

Professor Janet Woodruff-Borden

Dissertation: *Fatalism as a Cultural Influence on Correlates of Anxiety and Worry in Latino/a Adolescents*

Atanu Pathak

Physics

Assistant Professor Swagato Banerjee

Dissertation: *Search for New Physics Using Lepton Flavor Violating Signatures in Modern Particle Colliders*

Aymen Hasan Atallah Qatamin

Physics

Professor Sergio Mendes

Dissertation: *Electrochemically-modulated Surface Plasmon Waves at the Nano-scale for Investigations and Applications of Redox Assemblies*

Matthew Steven Reynolds

Applied and Industrial Mathematics

Professor David Swanson

Dissertation: *Convolution Inequalities and Applications to Partial Differential Equations*

Allison Mary Rodgers

Clinical Psychology

Associate Professor Paul Salmon

Dissertation: *The Intersection of Mindfulness and Gratitude: Examining the Roles of Gratitude and Mindfulness Practices Within a 4-Week Mindfulness-Based Intervention on Depressive Symptoms in Undergraduates*

Shawn Michael Rolfe

Criminal Justice

Co-Chairs: Professor Deborah Keeling and

Associate Professor Viviana Andreescu

Dissertation: *Peer Verbal Sexual Harassment in Early Adolescence: A Feminist and Sexual Scripts Theoretical Approach*

Nina Saraei

Chemistry

Professor Craig Grapperhaus

Dissertation: *Water Cluster Motifs in Structurally Similar N-(Aminoethyl)-1-Methylimidazole-2-Carboxamide Metal Complexes: Synthesis, Characterization, Thermal and Electrical Properties*

Christopher Allen Scheidler

English Rhetoric and Composition

Professor Bruce Horner

Dissertation: *Making Modality: Transmodal Composing in a Digital Media Studio*

Katie Marie Seiter

Biology

Associate Professor Linda Fuselier

Dissertation: *Undergraduate Students Use Moral Reasoning and Belief in Genetic Determinism in Response to a CRISPR/CAS9 Socioscientific Issue*

Brian Keith Simpkins

Criminal Justice

Assistant Professor Kristin Swartz

Dissertation: *Assaults on Law Enforcement Officers: A Spatial and Theoretical Analysis through Social Disorganization*

Chelsea Jane Siwik

Clinical Psychology

Professor Sandra Sephton

Dissertation: *Depressive Symptoms and Survival Among Lung Cancer Patients; Biomarkers and Potential Benefits of an iPod- and Mindfulness-Based Intervention*

Justin Douglas Smith

Chemistry

Assistant Professor Sachin Handa

Dissertation: *(Pseudo)Phase Tuning in the Service of Synthesis: Technologies for Sustainable Catalysis*

Jacob Michael Strain

Chemistry

Professor Francis Zamborini

Dissertation: *Electrochemical Reduction of Carbon Dioxide and Carbon Monoxide for the Production of Green Fuels and Chemicals*

Lokupatabendige Ashan Vitharana

Physics

Associate Professor Jian Du-Caines

Dissertation: *A Comprehensive Study of the Short-term Variability of the Migrating Diurnal Tide in the Mesosphere and Lower Thermosphere*

Anqi Xu

Urban and Public Affairs

Associate Professor Matthew Ruther

Dissertation: *Changing Faces, Changing Places: Understanding Immigration, Housing Market and Native Out-Migration in Established and New Destinations in the United States*

College of Education and Human Development

Katherine Michelle Cooper

Curriculum and Instruction

Co-Chairs: Assistant Professor Thomas Simmons and

Associate Professor Debra Bauder

Dissertation: *Job Satisfaction for Individuals with Disabilities: Youth One Year Out*

Kimberly Kaye Daugherty

Educational Leadership and Organizational Development

Associate Professor Jason Immekus

Dissertation: *Investigating Consensus Regarding Development of Entry Level Pharmacy Roles with Competency/ EPA Alignment and Levels of Entrustment*

Karen Chinesw Idigo

Counseling and Personnel Services

Associate Professor Laurie McCubbin

Dissertation: *The Nigerian-American Immigration Experience: Overcoming Adversity Through Resilience*

Angela Kaye Jorgensen

Educational Leadership and Organizational Development

Associate Professor Meera Alagaraja

Dissertation: *Analyzing Human Resource Competency Development through the Lens of Adult Learning Theory: A Qualitative Case Study on Change Management Competency in a Global U.S.-Based Firm*

Wei-Shao Lin

Educational Leadership and Organizational Development

Professor Namok Choi

Dissertation: *Predicting Dental Student's Performance on National Board Dental Examination (NBDE) Part I: Exploring Demographic Factors, Dental Admission Test (DAT) Factors, Pre-program Academic Factors, and Dental Program Academic Performance*

Brent Anthony Luebcke

Counseling and Personnel Services

Professor Mark Leach

Dissertation: *Therapeutic Rupture Repair in Treatment of Military Adolescents*

Heidi A. Neal

Educational Leadership and Organizational Development

Assistant Professor Casey George

Dissertation: *College was a Slap in the Face: Examining the Transition of Kentucky Appalachian Students Studying STEM at an Urban Institution*

Stephanie Thea O'Donnell

Counseling and Personnel Services

Assistant Professor Amy Hirschy

Dissertation: *The Ball is in Your Court: A Phenomenological Study Examining College Athletes with Learning Disabilities and/or ADHD on College Campuses*

Dominic Gideon Karl Schmuck

Counseling and Personnel Services

Co-Chairs: Professor Mark Leach and Professor Anita Barbee

Dissertation: *The Influence of Self-forgiveness on Relationship Satisfaction Post-Infidelity*

Nicholas Lamar Wright

Counseling and Personnel Services

Professor Susan Longerbeam

Dissertation: *Other Does Not Define Me: A Phenomenological Study Examining Multiracial Student Sense of Belonging in a Predominantly White Institution*

College of Business

Alireza Aghaey

Entrepreneurship

Associate Professor Robert Garrett

Dissertation: *Differences in Opportunity Evaluation Between Corporate and Independent Entrepreneurs*

Tommie Welcher

Entrepreneurship

Associate Professor Robert Garrett

Dissertation: *The Corporate Venture Dyad: A Study of the Impact of Cultural Distance on Venture Performance*

Interdisciplinary Studies

Samarendra Das

Interdisciplinary Studies

Professor Shesh Rai

Dissertation: *Statistical Approaches of Gene Set Analysis with Quantitative Trait Loci for High-Throughput Genomic Studies*

Zackary R. Fitzsimonds

Interdisciplinary Studies

Professor Richard Lamont

Dissertation: *Epithelial Responses to Porphyromonas Gingivalis in the Community Context*

Nathan Curtis Jones

Interdisciplinary Studies

Co-Chairs: Associate Professor Robert Carini and

Associate Professor Daniel Krebs

Dissertation: *In Need of a Hero? The Creation and Use of the Legend of General George S. Patton, Jr.*

Landon Heath Tompkins

Interdisciplinary Studies

Co-Chairs: Professor Steven Koenig and

Assistant Professor Jonathan Kopechek

Dissertation: *Development of a Pediatric Cardiac Assist Maglev Pump for Use with a Universal Driver System*

School of Public Health and Information Sciences

Mohammad Yaser Anwar

Public Health Sciences

Associate Professor Kira Taylor

Dissertation: *Characterization of Adiposity and Inflammation Genetic Pleiotropy Underlying Cardiovascular Risk Factors in Hispanics*

John A. Craycroft

Biostatistics

Professor Maiying Kong

Dissertation: *Aspects of Causal Inference*

Mary Elizabeth Gregg

Biostatistics

Associate Professor Doug Lorenz

Dissertation: *Marginal Methods and Software for Clustered Data with Cluster and Group-Size Informativeness*

Deborah Kaminka Niyongabo

Public Health Sciences

Professor Christopher E. Johnson

Dissertation: *The Green House Nursing Home Model: The GH Elements and Their Impact on Quality of Care in Nursing Homes*

Jingchao Sun

Biostatistics

Co-Chairs: Professor Maiying Kong and Assistant Professor Subhadip Pal

Dissertation: *Modied-Half-Normal Distribution and Different Methods to Estimate Average Treatment Effect*

Raymond A. Kent School of Social Work

Verena Grace Schmidt

Social Work

Associate Professor Lesley Harris

Dissertation: *Incarceration Experiences of Older African American Adults Living with HIV- A Constructivist Grounded Theory Study*

Ariel Michelle Washington

Social Work

Professor Karen Kayser

Dissertation: *The Development of a Culturally-Informed Cervical Cancer Screening and Prevention MHealth Intervention for African American Women*

Donghang Zhang

Social Work

Co-Chairs: Professor Bibhuti Sar and Associate

Professor Emma Sterrett-Hong

Dissertation: *Positive Parenting as a Moderator for Reducing Depression in Inner-city Children Exposed to Contextual Risk Factors? A Longitudinal Multilevel Analysis of a Family-Based Intervention*

School of Medicine

Christopher Lynn Harding

Microbiology and Immunology

Assistant Professor Nathan Schmidt

Dissertation: *Plasmodium Impairs Antibacterial Innate Immunity to Systemic Infections in Part Through Hemozoin-Bound Bioactive Molecules*

Rubens Petit Homme

Physiology

Co-Chairs: Professor Suresh Tyagi and Assistant Professor Mahavir Singh

Dissertation: *Modulation of Inflammatory Pathway by Inflammatory Inhibitor JSH-23 Mitigates Diabetic Retinopathy*

Jian Jin

Pharmacology and Toxicology

Associate Professor Matthew Cave

Dissertation: *Evaluating the Effects of PCBs in Non-Alcoholic Fatty Liver Disease & Diabetes and the Role of AHR in Regulating the Hepatic Proteome and Lipid Metabolism*

Robert Chandos Monsen

Biochemistry and Molecular Genetics

Professor John Trent

Dissertation: *Structural Characterization and Selective Drug Targeting of Higher-Order DNA G-Quadruplex Systems*

Samantha Megan Morrissey

Microbiology and Immunology

Co-Chairs: Professor Jun Yan and Professor Haribabu Bodduluri

Dissertation: *Tumor-Derived Exosomes Drive Immunosuppressive Macrophages in a Pre-Metastatic Niche through NF- κ B Dependent Glycolytic Metabolic Reprogramming*

Mohammad Roky

Microbiology and Immunology

Professor Donald Demuth

Dissertation: *Identification and Structural Characterization of Functional Motifs in the *Porphyromonas Gingivalis* Mfa1 Short Fimbria*

Jessica Elaine Schucht

Physiology

Co-Chairs: Associate Professor Jason Smith

and Professor Claudio Maldonado

Dissertation: *Plasma Resuscitation Attenuates Intestinal Barrier Disturbances Following Hemorrhagic Shock*

Rachel M. Speer

Pharmacology and Toxicology

Professor John Wise

Dissertation: *Mechanisms of Chromate-Induced Suppression of RAD51: A One Environmental Health Approach*

Desmond Ramon Harrell Stewart

Pharmacology and Toxicology

Professor Geoffrey Clark

Dissertation: *A Novel Role for RASSF1A in the Regulation of RAS Activation*

Katlin Brooke Stivers

Microbiology and Immunology

Co-Chairs: Professor James Hoying and

Associate Professor Pascale Alard

Dissertation: *Tissue-Resident Myeloid-derived Suppressor Cells*

Jamie Lynn Young

Pharmacology and Toxicology

Professor Lu Cai

Dissertation: *The Effects of Whole Life, Low Dose Cadmium Exposure on High Fat Diet-Induced Non-Alcoholic Fatty Liver Disease and the Role of Zinc*

School of Nursing

Adam Tyler Booth

Nursing

Professor Becky Christian

Dissertation: *Moral Distress and Moral Residue Among Nurses Working in the Surgical Intensive Care Unit: A Descriptive Qualitative Approach*

Greir Ander Huck Flynn

Nursing

Professor Barbara Polivka

Dissertation: *Trust in Primary Care Providers: Perspectives from Deaf People*

J. B. Speed School of Engineering

Moath Hasan Atallah Alqatamin

Electrical Engineering

Associate Professor Michael McIntyre

Dissertation: *Model-Based Control methods to Improve the Power Quality of Grid-Connected Single-Phase Inverters*

Waleed Ebraheem Alim

Mechanical Engineering

Associate Professor Michael Voor

Dissertation: *Simulation of Fracture Strength Improvements of an Osteoporotic Proximal Femur Using Finite Element Analysis*

Alex Martin Bates

Mechanical Engineering

Associate Professor Sam Park

Dissertation: *Aqueous Redox Flow Batteries with Boron Doped Diamond as an Electrode*

Masoud Derakhshani

Mechanical Engineering

Associate Professor Thomas Berfield

Dissertation: *Dynamic Analysis and Fabrication of a Bi-Stable Structure Designed for MEMS Energy Harvesting Applications*

Aofei Guo

Civil Engineering

Co-Chairs: Professor Zhihui Sun and Theme Researcher
in the Conn Center Jagannadh Satyavolu

Dissertation: *Hydration, Shrinkage, Cracking, and Mechanical Properties
of Cementitious Materials with Lignocellulosic Biomass Wastes*

Nicholas Alexander Hawkins

Electrical Engineering

Associate Professor Michael McIntyre

Dissertation: *Nonlinear Control and Observation of
Full-variable Speed Wind Turbine Systems*

Farnaz Minooei

Chemical Engineering

Co-Chairs: Professor Joel Fried and Assistant
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Dissertation: *The Use of Nanoparticles and Electrospun Fibers for
Intravaginal Delivery to Treat Viral and Bacterial Infections and
Electrophysiological Measurements of Synthetic Chloride Channels*

Mostafa Mohamed Izz E S Mohamed

Electrical Engineering

Professor Aly Farag

Dissertation: *Fly-In Visualization of Tubular Objects:
Theory and Application in Virtual Colonoscopy*

Kristopher Wayne Reese

Computer Science and Engineering

Professor Adel Elmaghraby

Dissertation: *Computational Behavioral Analytics:
Estimating Psychological Traits in Foreign Languages*

Arnab Roy

Industrial Engineering

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Dissertation: *Mathematical Models and Analysis for Demand Side
Management in Residential Electricity Distribution Networks*

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Mechanical Engineering

Professor Kevin Chou

Dissertation: *Experimental and Numerical Study of Process
Parameters Effects Towards Part Quality and Porosity
During Powder Bed Additive Manufacturing Processes*

Yan Wu

Industrial Engineering

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Dissertation: *Modeling and Analysis for Unit Cell Size, Material Anisotropy and Material Imperfection Effects of Cellular Structures Fabricated by Powder Bed Fusion Additive Manufacturing*

Sofia Zahia

Computer Science and Engineering

Professor Adel Elmaghraby

Dissertation: *Imparting 3D Representations of Artificial Intelligence for a Full Assessment of Pressure Injuries*

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Ph.D. Biology
Mentor: Professor Mike Perlin

John A. Craycroft

Ph.D. Biostatistics
Mentor: Professor Maiying Kong

Samarendra Das

Ph.D. Interdisciplinary Studies
Mentor: Professor Shesh Rai

Mary Elizabeth Gregg

Ph.D. Biostatistics
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M.S. Pharmacology
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Mentor: Professor David Hein

Sara Elizabeth Henderson

D.N.P. Nursing
Mentor: Assistant Professor
Luz Huntington-Moskos

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M.S.S.W Social Work
Mentor: Assistant Professor
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Mentors: Associate Professor
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Wei-Shao Lin

Ph.D. Chemistry
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Ph.D. Biochemistry and
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Ph.D. Microbiology
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Ph.D. Mechanical Engineering
Mentor: Professor Kevin Chou

Justin Douglas Smith

Ph.D. Chemistry
Mentor: Assistant Professor
Sachin Handa

Rachel M. Speer

Ph.D. Pharmacology
and Toxicology
Mentor: Professor John Wise Sr.

Katlin Brooke Stivers

Ph.D. Microbiology
and Immunology
Mentors: Professor Jay
Hoying and Associate
Professor Pascale Alard

Jeffrey Barr Warner

M.S. Pharmacology
and Toxicology
Mentor: Associate
Professor Irina Kirpich

Anqi Xu

Ph.D. Urban and Public Affairs
Mentor: Associate Professor
Matthew Ruther

Jamie Lynn Young

Ph.D. Pharmacology
and Toxicology
Mentor: Professor Lu Cai

Donghang Zhang

Ph.D. Social Work
Mentors: Associate Professor
Emma Sterrett-Hong and
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