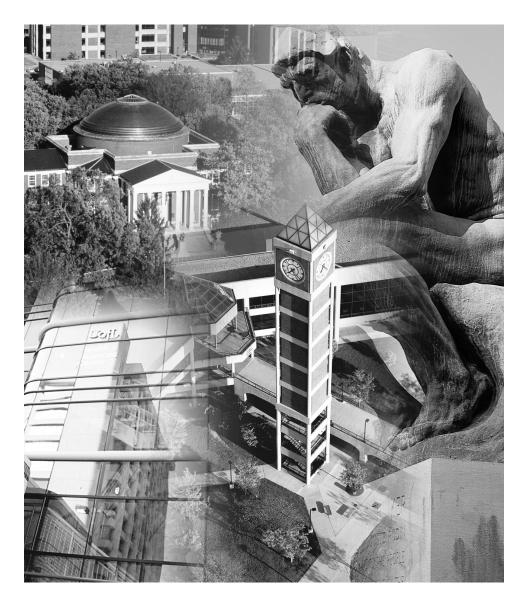


December 17, 2021

LOUISVILLE.



Fall 2021 Celebration

December 17, 2021



## 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

Irina Alexandrovna Vanzhula Ph.D. Clinical Psychology

Mentor: Associate Professor Cheri Levinson

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. Irina Vanzhula 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 Hooding and Commencement ceremonies.

Irina Vanzhula has demonstrated exceptional skills and productivity throughout her time in the doctoral program in Clinical Psychology in the Department of Psychological and Brain Sciences. Irina came to the United States to study psychology following a career as a journalist in her native St. Petersburg, Russia. Her first degree was in journalism, and she participated in a study abroad program as an undergraduate student at the University of Northern Iowa. She later permanently moved to the U.S. and obtained a second undergraduate degree in Psychology at the University of Illinois, receiving top awards for student research creativity. She was funded as a University Fellow at the University of Louisville and maintained a 4.0 GPA throughout her doctoral studies. Her research has integrated the study of mindfulness into the study of eating disorders, work which combines her clinical training and experience in mindfulness, under the supervision of Dr. Paul Salmon, with her clinical training and experience in eating disorder and cognitive behavior therapy interventions, under the supervision of Dr. Cheri Levinson. This integrative approach led her to develop an ambitious and novel dissertation project that was a randomized intervention study. This study is cutting edge and high-impact with important implications for public health, and it will be of great interest in the field of clinical psychology. This work is currently being prepared for publication.

Irina's ability to focus, her considerable writing skills and high level of organization have led to a high level of research productivity. She has expertise in complex statistical methods and has co-authored 23 peer reviewed journal articles. Irina completed a highly competitive predoctoral internship program at the University of Chicago School of Medicine, and she has been hired as a post-doctoral fellow in a prestigious eating disorder program at Johns Hopkins University. She is clearly an emerging leader in the field of eating disorders and clinical psychology at the national and international level.

#### The John Richard Binford Memorial Award

Victory Oseken Osezua Ph.D. Public Health Sciences

Mentor: Associate Professor Muriel Harris

Victory Osezua 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.

Victory Osezua is a Ph.D. candidate at the Health Promotion and Behavioral Sciences department in the School of Public Health and Information Sciences. She also received a Master of Public Health degree from University of Louisville and has a Bachelor of Science degree in Biochemistry from Covenant University, Nigeria. During her time at the University of Louisville, she exhibited excellence in academics, research, teaching, and service.

As an educator, Victory embraced the Health Promotion and Behavioral Sciences Department's goal of strengthening students' understanding of health equity and social justice. She mentored students on navigating their academic paths to expand their knowledge, pursue their passion and discover their purpose regardless of their backgrounds. She is passionate about teaching and has served as a teaching assistant and co-instructor for both undergraduate and graduate courses in the University of Louisville.

Victory's research explores inequities that affect the well-being of underserved youth using qualitative and quantitative research methods. Her research focuses on social injustices, structural racism, post-secondary success, and HIV risks. Her research also examines the risk and protective factors of racial and ethnic minority groups' health from an ecological lens to promote public health prevention efforts. Her study with refugee and immigrant populations identified social exclusion as a significant barrier to post-secondary educational attainment for young African refugees. The findings from this study led to her dissertation study titled "Understanding the Meaning of Wellbeing in the African Great Lakes Region's Refugee Youth in Louisville, Kentucky." Through mentorship from University of Louisville faculty, Victory has published research papers in several peer-reviewed scientific journals.

Beyond the classroom, Victory is active in campus programs and serves on panels that promote equity, inclusion, and student success. She served as the president of the Multicultural Association of Graduate Students to advocate for graduate students who are ethnic/racial minorities at the University of Louisville.

Victory also volunteers with the West Louisville Outdoor Recreation Initiative to address systemic barriers that prevent African American children from spending time in nature. Additionally, Victory serves as the Secretary of the Lead to Empower Initiative, a refugee and immigrant community organization that promotes leadership and empowerment of young immigrants who are racial and ethnic minorities. Over the years, Victory's demonstrated excellence in scholarship and leadership within the field of public health has been awarded with special recognition within and outside the University of Louisville.

# The John M. Houchens Prize for Outstanding Dissertation

#### Brett Robert Janis Ph.D. Biology

Mentor: Professor Michael Menze

Brett Janis 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.

During his Bachelor of Arts in biology, molecular biology, and biochemistry at Cornell College (Mt. Vernon, IA), Brett Janis gained insight into the process of self-driven research and became fascinated with combining organic chemistry and physics principles to approach biological guestions, which led him to work with Dr. Michael Menze at Eastern Illinois University (EIU). At EIU, he studied animals that survive desiccation in a phenomenon termed anhydrobiosis. Anhydrobiotic (life without water) animals express a specific class of polypeptides termed intrinsically disordered proteins (IDP). Anhydrobiotic animals become resilient to stress such as extreme temperatures, radiation, or even the vacuum of space. The IDPs Brett studies are termed Late Embryogenesis Abundant (LEA) proteins and occur in the cysts of the brine shrimp Artemia franciscana. The study of life without water poses unique biochemical and biophysical challenges. New ways to perform biochemical research approaches at minimal water contents had to be developed.

Dr. Menze and Brett transferred to the University of Louisville halfway through Brett's M.S. program, and he started his research as a Ph.D. in biology. Brett believes scientific discovery should be associated with some meaningful social impact whenever possible, so he adapted his research into anhydrobiosis to discover new ways to extend the shelf-life of biomedical materials like human red blood cells without refrigeration. He served as Co-PI on an NIH ExCITE grant, which funded his research into preserving cells for later medical use. This new research project combined his love for material chemistry with a passion for biomedical research and development. He began a fruitful collaboration with Dr. Jonathan Kopecheck at the Speed School of Bioengineering to develop a better way of cell storage through the National Science Foundation Innovation Corps program. Other parts of his work were possible through funding from the Department of Defense, the National Science Foundation, and the National Aeronautics and Space Administration.

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

Ashley Renee Ezzo M.A. Anthropology

Mentor: Assistant Professor Kathryn Marklein

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 Graduate School. 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. Ashley Ezzo is this year's recipient of the Barns award, and she tells her own story in her words here:

In my hometown poverty, minimum wage, broken families, and limited career opportunities are common. Most opportunities are provided to students of prominent families in the community. My family, along with so many others, were not this fortunate. Therefore, I was primarily responsible for my education and future.

My first experience of (non-familial) genuine care and encouragement was at Eastern Kentucky University (EKU). However, in summer 2016, I was hospitalized for a week at UofL with traumatic injuries after a car wreck. These injuries included thirteen fractured ribs, two knee fractures (coupled with a torn ligament and meniscus), a spine fracture, a hematoma requiring surgery, and a severe concussion (creating short term memory loss and speech deficits). I continued online courses the following semester and physically attended EKU in spring 2017. My drive was to return to EKU, where I first felt autonomous. However, after a year of unemployment (and not receiving disability or unemployment funding), I was in considerable credit card debt and worked three jobs as a full-time student to support myself. Additionally, after multiple failing attempts to maintain a run-down vehicle, I resorted to taking out a loan for a replacement. The added monthly payment forced me to acquire food stamps, a decision I pridefully struggled with because many in my hometown generationally needed food stamps. After graduating with overwhelming personal debt, I moved back home. My independence was gone, resulting in both mental and emotional anguish. I later realized I was happiest in college, and if I wanted to leave the situation I was in, I would have to go back.

Though I was elated to start my master's degree, my financial situation was still daunting, and I could not move to Louisville. This resulted in an hour commute and working multiple jobs. The following year (2020) I reclaimed my financial situation. However, a month after my final car payment. I was t-boned by an inattentive driver, totaling my

vehicle. The hard work of those four years was gone within minutes. Shortly after this event I contracted COVID and was isolated during the holidays. While recovering, I was desperate to have positivity outside of class.

Though many students held off project presentations/submissions in 2020/21 due to the pandemic, I submitted an entry and was granted the Polizer Essay Contest Award through the American Association of Physical Anthropology (AAPA), an uncommon accomplishment for first time entries. Afterwards, I presented a portion of my research at the 2021 AAPA annual meeting with glowing reviews. Then, shortly before graduating, I was hired as a research technologist for the Kentucky Spinal Cord Injury Research Center. Though many within the center view this position as minimal skill level, it's almost unreachable in my hometown. I never thought someone from my background, let alone me, would have this opportunity. While mental, emotional, physical, and financial struggles have plagued my educational journey, my pride and resilience have always been there to stoke my determination and overcome adversity while achieving my goal to help others.

## **Degrees - August and December 2021**

## Master of Fine Arts and Their Faculty Mentors

Paula Olivia Lockhart

Theatre Arts

Professor Johnny Jones

Thesis: In Bloom: Nurturing the Liberation Process of Performer

and Character as Rose in August Wilson's Fences

Tyler Nettles Tate

Theatre Arts

Assistant Professor Janna Segal

Thesis: GIT (Gender-Informed Trauma) in Black N Blue Boys / Broken Men: How Concepts of Gender Restrict the Black Male Actor's Creative

Process and The Methods He Can Use for Creative Freedom

# Juris Doctor and Their Faculty Mentors

Brooklynn Alcorn

Law

Co-chairs: Professor Jamie Abrams and Assistant Professor Dan Canon

Chris Emerson

Law

Co-chairs: Professor Jamie Abrams and Assistant Professor Dan Canon

Honors: cum laude

Olivia Renee Hester

Law

Co-chairs: Professor Jamie Abrams and Assistant Professor Dan Canon

Honors: cum laude

Jessica Marie Moore

Law

Co-chairs: Professor Jamie Abrams and Assistant Professor Dan Canon

# Doctor of Nursing Practice and Their Faculty Mentors

Andrew Kane Schroeder Aschbacher

Nursing

Assistant Professor Candace Harrington

Project: An Interprofessional Approach to Holistic End-

of-Life Care in Long Term Care Facilities

Yukishia Dantey Austin

Nursing

Assistant Professor Kimberly Meyer

Project: Protection Against Infection in Epidural Stimulation Implantation: A Program Evaluation

Michelle Leann Baxter

Nursing

Professor Frances Hardin-Fanning

Project: Expediting Dental Treatment for Patients with Diabetes Mellitus in a University-Based Dental Clinic

Megan Paige Bramlett

Nursing

Assistant Professor Kimberly Meyer

Project: A Quality Improvement Project for New Graduate Nurses to Improve Knowledge and Confidence in Recognizing Patient Deterioration

Elizabeth Ann Buchanan

Nursing

Associate Professor Dedra Hayden

Project: Educating Primary Care Advanced Practice Registered Nurses (APRN's) In the Use of Psychiatric Pharmacogenomic Testing To Guide Prescriptive Decision Making When Treating Depression

Jillian Ashley Champion

Nursing

Assistant Professor Lynette Galloway

Project: Development and Implementation of a Staffing Acuity

Model for School Nurses: A Policy Change Proposal

Brittney Breanna Corniel

Nursing

Assistant Professor Cynethia Bethel-Jaiteh

Project: Integrating mHealth in a Virtual Prenatal Class to Promote Behavior Modification in Pregnant Women Ashley Rae DeJarnette

Nursing

Associate Professor Sara Robertson

Project: Hair Toxicology Testing Among Children Evaluated

for Physical Abuse: Evaluation of a Practice Change

Hannah Elizabeth English

Nursing

Assistant Professor Paul Clark

Project: Improving Patient Safety during the Emergency Department

Discharge Process with the use of Two Patient Identifiers

Carlatesha Ke'ann Flippin

Nursing

Assistant Professor Cynethia Bethel-Jaiteh

Project: Effectiveness of an Evidence Based Cognitive Behavioral Therapy Program (Creating Opportunities for Personal Empowerment [COPE]) to Improve Childhood Mental Health Outcomes in a Private School Setting

Jennifer Goldman Fox

Nursing

Professor Whitney Nash

Project: Community-Based Wound Care Intervention Utilizing Non-Clinical Personnel in the Intravenous Drug Use Population

Lisa Christine Gaines King

Nursing

Professor Whitney Nash

Project: Implementation of a Quality Improvement (QI) Project to Increase Influenza Vaccination Uptake in a Pediatric Primary Care Setting

Lilly Giang

Nursing

Assistant Professor Shannon Shumaker

Project: Increasing Extubation Awareness During Interdisciplinary Rounds

with a Rounding Tool in the Pediatric Intensive Care Unit (PICU)

Phoebe Morkos Girgis

Nursing

Associate Professor Mary-Beth Coty

Project: Improving Communication and Teamwork Among Emergency Department Nursing Staff

Aminata Fatty Gueve

Nursing

Assistant Professor Elisabeth Volpert

Project: Program Evaluation: Assessing the Effectiveness of Diabetes

Group Education Utilizing the Diabetes Knowledge Test

Salma Erin Hegazi

Nursing

Professor Debra Anderson

Project: Improving Pneumonia Immunization Rates Among

Adult Residents of a Long-Term Care Facility

Kelsie Lynn Houchens

Nursing

Assistant Professor Lynn Roser

Project: Improving Pediatric Delirium Prevention to Decrease Pediatric Delirium Prevalence in the Pediatric Intensive Care Units

Kimberly Danielle Johnson

Nursing

Assistant Professor Lela Baker

Project: Implementation of an Evidence Based Quality Improvement Project to Improve Bathing Practices in the Neonatal Intensive Care Unit

Nina L. Johnson

Nursing

Associate Professor Sara Robertson

Project: The Black Church, Social Media, and Vaccine Hesitancy: Program Evaluation of a virtual Town Hall Meeting Intended to Educate, Empower and Expedite COVID-19 Vaccine Uptake Intent Among Black Americans

Erika Nichole Keithley

Nursing

Professor Mary DeLetter

Project: Using Simulation to Prepare Nursing Students to Care for COVID-19 Patients

Shelia Jones Kingsley

Nursing

Assistant Professor Lela Baker

Project: Implementation of a Newborn Skin Care

Routine to Decrease Diaper Dermatitis

Ghulam Mustafa Mughal

Nursing

Assistant Professor Shannon Shumaker

Project: Implementation of a Risk Assessments Tool in Cardiac Catheterization Laboratory in Patients On DAPT Undergoing PCI: A Quality Improvement Project

Emily Raisle Neal

Nursina

Associate Professor Sara Robertson

Project: Why Targeted Testing Matters: Evaluation of a Practice Change in Pediatric Ingestion Screening

Molly Elizabeth Recktenwald

Nursing

Assistant Professor Lynette Galloway

Project: Incorporating a Caregiver Support Group for Parents of Children Diagnosed with Type 1 Diabetes Mellitus (T1DM)

Christy Michelle Roe

Nursing

Assistant Professor Lela Baker

Project: The Effect of an Educational Intervention on Nurses' Knowledge and Skills Related to the T-Piece Resuscitator

Madeline Anne Sass

Nursing

Assistant Professor Lynette Galloway

Project: The Implementation of a Standardized Car Safety Seat Discharge Teaching to Improve Self-Efficacy in Neonatal Intensive Care Unit Nurses

Heather Denise Scott

Nursing

Associate Professor Mary-Beth Coty

Project: Implementation of Sensory Modulation for De-escalation

on an Adolescent, Female Psychiatric Inpatient Unit

Lauren Marie Topp

Nursing

Assistant Professor Beverly Williams-Coleman

Project: Evaluating Quality of Life and Participant Satisfaction

in a Cancer Support Community Yoga Program

Vickie Carolyn Paz Winner

Nursing

Assistant Professor Mollie Aleshire

Project: A Quality Improvement Project to Increase Tdap Vaccination Rates to Primary Caregivers in the Neonatal Intensive Care Unit

Holly Linnette Yahyawi

Nursing

Assistant Professor Mollie Aleshire

Project: Implementation and Evaluation of a Video Intervention to Increase Adherence at a Rural Phase II Cardiac Rehabilitation Program

#### **Doctor of Education and Their Faculty Mentors**

Rachel Leanne Baker

Educational Leadership and Organizational Development

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

Dissertation: Parent and Teachers' Perceptions of

Employment Outcomes for Youth with Intellectual Disabilities

Transitioning from the Public School Setting

#### Julie Chancellor

Educational Leadership and Organizational Development

Co-Chairs Associate Professor Shelley Thomas

and Professor W. Kyle Ingle

Dissertation: Urban Teachers' Perspectives on Teaching Diverse Students

#### James Edward McMillin

Educational Leadership and Organizational Development

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

Dissertation: Academy Student Ambassador Perceptions of

the Academy Model: The Successes and Areas for Growth

#### Kendra M. Nolan

Educational Leadership and Organizational Development

Professor Kyle Ingle

Dissertation: Non-Traditional Instruction: Examining the Interaction

Effect Between Student Characteristics and Perceived Sense

of Connectedness in An Online Learning Environment

#### Erin Leigh Seale

Educational Leadership and Organizational Development

Professor Mary Brydon-Miller

Dissertation: A Phenomenological Study of the

Perceptions of Co-Teaching through the Lens of Special

Education and General Education Teachers

#### **Doctor of Philosophy and Their Faculty Mentors**

### College of Arts and Sciences

Jack Reginald Allen III Applied Sociology

Co-chairs: Associate Professors Melanie Gast and Karen Christopher Dissertation: A Study of Arab and South Asian American Men with Immigrant-Family Origins in Two New Immigrant Destinations

Steven William Bailey

Biology

Associate Professor James Alexander

Dissertation: Community Structure and Dynamics of Benthic Macroinvertebrates in a Recreated Headwater Stream on a Valley Fill in Retrofitted Watershed Location in the Appalachian Coalfields of Southeastern Kentucky (U.S.A.)

Clinton James Belott

Biology

Professor Michael Menze

Dissertation: Visualizing Anhydrobiosis: Liquid-liquid Phase

Separation, Membraneless Organelles, and Cellular Reorganization

Edward Howard Byers

Criminal Justice

Professor Gennaro Vito

Dissertation: A Qualitative Study of 129 Police Lethal Force Incidents in 2016 Examining Participant Behavior Relating to Mental Illness that Contributes to the Use of Lethal Force

Caleb Aaron Calvary

Chemistry

Co-chairs: Professors Craig Grapperhaus and Robert Buchanan Dissertation: *Synthesis, Characterization, and Catalytic Activity* 

Of Functionalized Metal Bis(thiosemicarbazones)

John Walter Chenault Pan-African Studies

Co-chairs: Professor Theresa Rajack-Talley and

Associate Professor Tyler Fleming

Dissertation: Western Christianity and the Origins of Antiblackness,

Eurocentrism, and White Supremacist Ideology

Amanda N. Denton Urban and Public Affairs Professor Janet Kelly

Dissertation: The Impact of Criminal Justice Involvement: Examining Experiences in a Housing First Program

Tiffany Dillard-Knox Pan-African Studies Professor Ricky Jones

Edward Alan English

Dissertation: Black Codes Re-envisioned: The Dred Scott Majority Opinion as an Antiblack Performative Speech Act

Uyen Thi Duong Chemistry Associate Professor Sachin Handa Dissertation: *Micellar Nanocatalyst for Efficient Reactions* 

English Rhetoric and Composition
Professor Bronwyn Williams
Dissertation: Imagination in Practice: Writing
Studies and the Application of Hospitality

Selorm Joy Fanah Chemistry Associate Professor Farshid Ramezanipour Dissertation: Synthesis, Crystal Structure and Ionic Conductivity of Ruddlesden-Popper Oxide Materials: Effects of Ionic Radii and Defects on Lithium-Ionic Conductivity

Arghya Pratim Ghosh Chemistry

Professor Pawel M. Kozlowski

Dissertation: Theoretical Investigation of the Co-C Bond Activation in Methylcobalamin and Adenosylcobalamin-

Dependent Systems: Mechanistic Insights

Elizabeth Lane Glass Humanities Professor Paul Griner

Dissertation: Explosive Family Dinners: Bipolar

Disorder, Temporal Lobe Epilepsy & Me

Sahar Goharshenasanesfahani

Physics

Co-chairs: Associate Professor Serban Smadici and Professor Ming Yu

Dissertation: Ultrafast Magnetic Entropy Dynamics

and Susceptibility Dynamics Measurements

Leslie Ann Greenwell

Criminal Justice

Associate Professor Viviana Andreescu

Dissertation: General Strain Theory and Violent

Behavior in a Military Sample

Caroline Greiner de Magalhaes

Experimental Psychology

Professor Carolyn Mervis

Dissertation: Literacy Abilities of Children and

Adolescents with Williams Syndrome

Ulf Högnäs

Applied and Industrial Mathematics

**Professor Robert Powers** 

Dissertation: Decisive Neutrality, Restricted Decisive Neutrality, and Split Decisive Neutrality on Median Semilattices and Median Graphs

Faisal Ibrahim

Chemistry

Professor Michael Nantz

Dissertation: Micelles and Lipid Nanoparticles:

Catalysis and Biomedical Application

Abdelgader Mohammad Jamhawi

Chemistry

Associate Professor Jinjun Liu

Dissertation: Photophysics of Substituted [1,4]Benzodioxino[2,3-B]

Oxanthrene Chromophores and their Macromolecules: A Spectroscopy And Density Functional Theory Study

Nour Mohammad Hamed Jamhawi

Chemistry

Professor Richard Wittebort

Dissertation: Investigations of Elastin Recoil on

molecular and Macroscopic levels

Brett Robert Janis

Biology

Professor Michael Menze

Dissertation: Computational and Biochemical Characterizations

of Anhydrobiosis-Related Intrinsically Disordered Proteins

Daniel Ray Jude Criminal Justice

Co-chairs: Professor George Higgins and Associate Professor Viviana Andreescu

Dissertation: Social Disorganization and Violent Crime

Across Nonmetropolitan Areas of Kentucky

Bhupendra Man Shing Karki

**Physics** 

Co-chairs: Professors Gamini Sumanasekera and Byron Freelon

Dissertation: Structural, Vibrational and Transport

Properties of Novel Complex Systems

Megan Joy Toda Mackintosh

Chemistry

Professor Pawel Kozlowski

Dissertation: Computational Investigations of the Photochemical Properties of B12-Dependent Systems: From Solution to Enzymes

Badri Prasad Mainali

Chemistry

Professor Frank Zamborini

Dissertation: Electrochemical Characterization of Surface-Immobilized Metal Nanostructures: Stability, Atomic Level Doping, Catalysis, and Sensing Applications

Hector Eduardo Mendoza

Biology

Professor Michael Perlin

Dissertation: Investigation of Mitochondrial Inheritance

in the Smut Fungus Sporisorium Reilianum

Paige J. Monsen

Chemistry

Professor Frederick Luzzio

Dissertation: Recent Studies on the Synthesis of Medicinal Moleules

Md Rajib Khan Musa

**Physics** 

Professor Mina Yu

Dissertation: First Principle Studies of the Effects of Alkali-Metal Intercalation on the Structural Transition from Black to Blue Phosphorene and the Adsorption of N2H4 on WS2 Layers

Jessica S B Newman

English Rhetoric and Composition

Professor Bronwyn Williams

Dissertation: The Space Between: Listening with Difference in

Writing Center Consultations

Nonah Marie Olesen

Experimental Psychology

Associate Professor Cara Cashon

Dissertation: The Effect of Parent Interactions on Young Infants' Visual Attention in an Object-Manipulation Task

Manthila Chathurange Rajapakse

Physics

Professor Gamini Sumanasekera

Dissertation: Intercalation and High Pressure Studies of Black

Phosphorous - Pathways to Novel Materials and Physics

Amanda M. Roberts

Criminal Justice

Associate Professor Kristin Swartz

Dissertation: Charting the Unknown: The Prevalence and Correlates of Secondary Traumatic Stress in Kentucky Probation and Parole Officers

Shahbaz Shahbaz

Urban and Public Affairs

Professor Frank Goetzke

Dissertation: Sustainable Urban Groundwater Governance

in Faisalabad, Pakistan: Challenges and Possibilities

Kelly Elizabeth Slaughter

Clinical Psychology

Associate Professor Paul Rosen

Dissertation: Social Cognition, Impulsivity, and Emotion

Regulation Factors in Aggressive Behavior Among Children

with Attention-Deficit/Hyperactivity Disorder

Irina Alexandrovna Vanzhula

Clinical Psychology

Associate Professor Cheri Levinson

Dissertation: Manipulating Mindful Breathing Versus Mindful

Eating: Examining the Effect of Specific Mindfulness Mechanisms

on Food Intake and Eating Disorder Symptoms

Rachel LeAnn Wells

Biology

Professor Stephen Yanoviak

Dissertation: Distribution and Ecological Effects of Azteca Chartifex Trigona in the Barro Colorado Nature Monument

Fang Yuan

Chemistry

Professor Xiang Zhang

Dissertation: Mass Spectrometry Based Metabolics and Lipidomics

#### College of Education and Human Development

Katie Jo Berghuis

Counseling and Personnel Services Co-chairs: Professor Patrick Possel and Assistant Professor Amanda Mitchell

Dissertation: Concurrent Reporting of Adolescent Adverse Childhood Experiences Among Perspectives of Adolescents and Caregivers

Shelby Madison Burton
Counseling and Personnel Services
Professor Patrick Possel
Dissertation: A Social Learning Approach to the
Examination of the Temporal Directionality Between
Parenting Behavior and Early Adolescents' Affect

Lauren Fletcher Curriculum and Instruction Professor Amy Seely Flint

Dissertation: Manifestations of Students' Voices:

Examining Shifts, Academic Demands, and Identity Work

in How Students Make Themselves Understood

Jeanne Toure Guerrero

Educational Leadership and Organizational Development

Associate Professor Jacob Gross

Dissertation: The Influence of Dual Enrollment

on Rural College Student Persistence

John M. Hart

Counseling and Personnel Services

Professor Mark Leach

Dissertation: Implicit Theories as a Moderator between Religious Commitment and Forgiveness among Muslims

Experiencing a Religious Identity Offense

Lucas Tucker Huckaby
Counseling and Personnel Services

Professor Mark Leach

Dissertation: Religiosity, Outgroup Contact, Postconventional Religious Reasoning, and their Associations with Christians'

Prejudice Against Sexual and Gender Minorities

Regina Chanel Johnson

Educational Leadership and Organizational Development

Professor Jeffrey Sun

Dissertation: The Forgotten Ones: A Qualitative Study to Understand the Phenomena of Medically Disqualified Student-Athletes

Brandon C. Joseph

Counseling and Personnel Services

Associate Professor Susan Longerbeam

Dissertation: The Journey Towards Critical Self-Authorship for

Native Lacrosse Athletes at NCAA Division I Institutions

Youngjik Philip Lee

Educational Leadership and Organizational Development

Professor Mary Hums

Dissertation: A Comparative Study on the Organizational Culture

of a South Korean and US High School Athletic Department

Stephanie Renae Mayberry

Counseling and Personnel Services

Associate Professor Susan Longerbeam

Dissertation: A Soft Place to Land: The Importance of Otherparenting

at PWIs

Shannon Reeves Putman

Curriculum and Instruction

Co-chairs: Associate Professor Justin Cooper

and Professor Ginevra Courtade

Dissertation: Immersive Virtual Reality and Education:

Utilizing IVR with Preservice Teachers

Teresa Lee Tinnell

Curriculum and Instruction

Professor Thomas Tretter

Dissertation: Engineering Performance and Teamwork Perceptions

Shaped by Structured Learning Experiences in a Makerspace

Kaylyn Lee Watterson

Counseling and Personnel Services

Co-Chairs: Associate Professors Laurie McCubbin and Meera Alagaraja

Dissertation: Navigating Internalized Stigma and Identity
Development in Bipolar I: A Grounded Theory Investigation

Tytianna Nikia Maria Wells

Curriculum and Instruction

Professor Michele Foster

Dissertation: An Exploration of Afrocentric Features at a Black

Homeschool Collective

#### **Interdisciplinary Studies**

Kandauda Malinika Kalpani de Silva Interdisciplinary Studies, specialization in Bioinformatics Co-chairs: Associate Professor Theodore Kalbfleisch and Professor Eric Rouchka Dissertation: A Method for Identifying Ancient Introgression between Caballine and Non-caballine Equids using Whole Genome High-Throughput Data

Moustafa Hassan Meki Interdisciplinary Studies, specialization in Translational Bioengineering Professor Guruprasad Giridharan Dissertation: Development and Applications of In-Vitro and In-Silico Models of the Cardiovascular System to Study the Effects of Mechanical Circulatory Support

### School of Public Health and Information Sciences

Indranil Ghosh Biostatistics Professor Maiying Kong

Dissertation: Estimating Treatment Effect on Medical Cost and Examining Medical Cost Trajectory using Splines and Change-point Techniques

Rishtya Meena Kakar
Public Health Sciences
Assistant Professor Ryan Combs
Dissertation: Exploring Opportunities for Prevention of Child
Sexual Abuse in Diverse American Muslim Community

Joel Lanceta
Public Health Sciences
Professor Bert Little
Dissertation: The Impact of Statin Use on Outcomes of Diabetic
Adult Patients Hospitalized for Community Acquired Pneumonia

Sivarchana Mareedu Public Health Sciences

Co-chairs: Associate Professor Torsten Hopp and Professor Gary Hoyle Dissertation: Development and Validation of Biosafety Climate Scale and Survey-Based Analyses of Safety Perceptions in Biological Research and Teaching Laboratories at Public Universities in the USA

Victory Oseken Osezua Public Health Sciences

Associate Professor Muriel Harris

Dissertation: Understanding Wellbeing in Refugee Youth from the African Great Lakes Region in Louisville, KY

Md Nazir Uddin Biostatistics

Associate Professor Jeremy Gaskins

Dissertation: Bayesian Variable Selection Strategies in Longitudinal

Mixture Models and Categorical Regression Problems

Sarah Christena Van Heiden Public Health Sciences Assistant Professor Susan Buchino

Dissertation: Exploring the Contextual Factors and Decision-Making Process of Risky Sexual Behavior

Among Homeless Older Adults in Louisville, KY

Kelsey Blankenship White Public Health Sciences

Associate Professor J'Aime Jennings

Dissertation: Hospital-based Professional Spiritual Care: Evaluating the Utilization, Availability, & Impact of Chaplains

Diane M. Zero

Public Health Sciences

Associate Professor Scott LaJoie

Dissertation: "And the Next Day, You Are in Charge": Policy Recommendations Stemming from a Qualitative Investigation into the Professional Development of Early

Career Peer Support Specialists in Kentucky

### Raymond A. Kent School of Social Work

Rebecka Michelle Bloomer

Social Work

Associate Professor Lesley Harris

Dissertation: Exploring the Promotion of Youth Voice and Activism by Youth Development Workers in Community-Based Programs

Tammi Alvey Thomas

Social Work

Professor Crystal Collins-Camargo

Dissertation: Exploring Service Provider Perspectives on Facilitators and Barriers to Needle Exchange Program

Participation by Females Who Inject Drugs

Richard Dana Weaver Jr.

Social Work

Associate Professor Adrian Archuleta

Dissertation: Evaluation of Risk and Protective Factors of Substance

Use in the National Association of Intercollegiate Athletics

## School of Medicine

Timothy Ndagi Audam

Biochemistry and Molecular Genetics

Professor Steven Jones

Dissertation: Impact of PANK1 Deletion on Mitochondrial

Acetylation and Cardiac Function During Pressure Overload

Matthew William Dent

Pharmacology and Toxicology

Professor Nobuyuki Matoba

Dissertation: Preclinincal Development Of Avaren-Fc: A Novel Lectin-Fc Fusion Protein Targeting Cancer-Associated High-Mannose Glycans

Marc Matthew Dwenger

Pharmacology and Toxicology

Assistant Professor Matthew Nystoriak

Dissertation: Pyridine Nucleotide Redox Potential In Coronary Smooth

Muscle Couples Myocardial Blood Flow To Cardiac Metabolism

Jason H. Gumbel

Anatomical Sciences and Neurobiology

Professor Charles Hubscher

Dissertation: Investigation of Potential Mechanisms

Underlying Spinal Cord Injury-induced Polyuria

Henry Nabeta

Microbiology and Immunology

Professor Kenneth Palmer

Dissertation: Q-Griffithsin Interactions and Utility for the

Prevention and Treatment of Mucosal Infections

Jordan Taylor Noe

Biochemistry and Molecular Genetics

Professor Robert Mitchell

Dissertation: Metabolic-Epigenetic Regulation of Macrophage Polarization

Lisa Christina Ohman

Anatomical Sciences and Neurobiology

Professor Robin Krimm

Dissertation: An Analysis of Taste Neuron Morphological

Variability: Influences of Neuron Type and Plasticity

Sophia Marie Sears

Pharmacology and Toxicology

Professor Leah Siskind

Dissertation: Characterizing the Role of Macrophages in Cisplatin-Induced Kidney Injury and Progression to Chronic Kidney Disease

Samiyyah Masina Sledge Physiology and Biophysics Professor Douglas Borchman

Dissertation: Role of Meibum and Tear Phospholipids in The Evaporative Water Loss Associated with Dry Eye

George Z. Wei

Pharmacology and Toxicology Professor Scott Whittemore

Dissertation: Oligodendrocyte and Dorsal Root Ganglion Responses After Spinal Cord Injury

## **School of Nursing**

Hedaya Rateb Hasan Hina Nursing

Professor Lynne Hall

Dissertation: Perceived Social Support, Family Relationships, And Health-Related Quality Of Life Among Women With Breast Cancer In Jordan

## J. B. Speed School of Engineering

Shamsudeen Olawale Abubakar

Electrical Engineering Professor Dan Popa

Dissertation: Collaborative Human-Machine

Interfaces for Mobile Manipulators

Islam Mohamed Ahmed Mohamed Mahmoud Alkabbany

Electrical Engineering

Co-Chairs Professor Aly Farag

Dissertation: Biometric Features Modeling to

Measure Students Engagement

Mohsen Asghari

Computer Science and Engineering

Professor Adel Elmaghraby

Dissertation: Linking Social Media, Medical Literature,

and Clinical Notes Using Deep Learning

Veerendra Atla Chemical Engineering Professor Mahendra Sunkara Dissertation: Mixed Metal Oxide Nanowires via Solid State Alloying

Amir Hossein Ghahremani Mechanical Engineering Researcher Thad Druffel Dissertation: Rapid Annealing of Perovskite Solar Cell Thin Film Materials Through Intense Pulse Light

Mohamad Ghanoum
Electrical Engineering
Professor Aly Farag
Dissertation: Passive Method for 3D Reconstruction
of Human Jaw: Theory and Appliation

Zabih Ghelichi Industrial Engineering Associate Professor Monica Gentili Dissertation: Drone Location and Scheduling Problems in Humanitarian Logistics

Pu Han
Mechanical Engineering
Associate Professor Keng Hsu
Dissertation: An Investigation Into Energy-Material Properties
Interaction In Additive Manufacturing Of Polymers

Samah Mansour
Computer Science and Engineering
Associate Professor Adrian Lauf
Dissertation: Lightweight Mutual Authentication and
Privacy Preservation Schemes for IoT Systems

Olusiji Oloruntobi Medaiyese Computer Science and Engineering Associate Professor Adrian Lauf Dissertation: Signal Fingerprinting and Machine Learning Framework for UAV Detection and Identification

Mohammadreza Mir Tamizdoust Civil Engineering Associate Professor Omid Ghasemi-Fare Dissertation: Analyzing the Non-Isothermal Multiphasic Flow in Porous Media Through Strongly Coupled Thermo-Hydro-Mechanical Modeling Marzieh Moradi Zaniani Chemical Engineering Professor Gerold Willing

Dissertation: Aggregation Dynamics of Bulk Nanoparticle Haloing Systems and the Influence of Non-Ambient Temperatures

Md Mahmudur Rahman Mechanical Engineering Associate Professor Stuart Williams

Dissertation: Towards Long Term Colloid Suspension

in a Vertically Rotated System

Christopher Kevin Robinson
Electrical Engineering
Professor Dan Popa
Dissertation: Variable Autonomy Assignment
Algorithms for Human-Robot Interactions

Wiem Safta
Computer Science and Engineering
Professor Hichem Frigui
Dissertation: Lung Nodules Identification in CT
Scans using Multiple Instance Learning

Pegah Sagheb Haghighi
Computer Science and Engineering
Professor Olfa Nasraoui
Dissertation: Cosine-based Explainable Matrix Factorization
For Collaborative Filtering Recommendation

Aliasghar Shahrjooihaghighi Computer Science and Engineering Professor Hichem Frigui Dissertation: Local Feature Selection for Multiple Instance Learning with Applications

Hong Shang
Civil Engineering
Professor Zhihui Sun
Dissertation: Develop a Multi-Functional Green Pervious
Concrete (Maps) Pavement with Polycyclic Aromatic

Hydrocarbons (Pahs) Removal Function

Parag Jafar Siddique

Industrial Engineering Co-Chairs Professor Kevin Gue and Professor John Usher Dissertation: *High-Density Parking for Autonomous Vehicles*  Song Wang
Civil Engineering
Associate Professor Zhixia Li
Dissertation: Modeling Driver Distraction Mechanism and its Safety
Impact in Connected, and Automated Vehicle Environment

Jice Zeng
Civil Engineering
Associate Professor Young Hoon Kim
Dissertation: Hybrid Structural Health Monitoring Using DataDriven Modal Analysis and Model-Based Bayesian Inference

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Timothy Ndagi Audam
Ph.D. Biochemistry and
Molecular Genetics
Mentor: Professor Steven Jones

Zachary Eugene Boocher M.S. Sports Administration Mentor: Associate Professor Evan Frederick

Brittney Breanna Corniel D.N.P. Nursing Mentor: Assistant Professor Cynethia Bethel-Jaiteh

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Ph.D. Anatomical Sciences
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Co-chairs: Professors Robin
Krimm and Charles Hubscher

Brett Robert Janis
Ph.D. Biology
Mentor: Professor Michael Menze

Rishtya Meena Kakar Ph.D. Public Health Sciences Mentor: Assistant Professor Ryan Combs

Mohammadreza Mir Tamizdoust Ph.D. Civil Engineering Mentor: Associate Professor Omid Ghasemi-Fare

Henry Nabeta Ph.D. Microbiology and Immunology Mentor: Professor Kenneth Palmer

Lisa Christina Ohman
Ph.D. Anatomical Sciences
and Neurobiology
Mentor: Professor Robin Krimm

Nonah Marie Olesen Ph.D. Experimental Psychology Mentor: Associate Professor Cara Cashon

Victory Oseken Osezua Ph.D. Public Health Sciences Mentor: Associate Professor Muriel Harris

Kandauda Malinika Kalpani de Silva Ph.D. Interdisciplinary Studies, specialization in Bioinformatics Mentors: Associate Professor Theodore Kalbfleisch and Professor Eric Rouchka Kelly Elizabeth Slaughter Ph.D. Clinical Psychology Mentor: Associate Professor Paul Rosen

Irina Alexandrovna Vanzhula Ph.D. Clinical Psychology Mentor: Associate Professor Cheri Levinson

Rachel LeAnn Wells Ph.D. Biology Mentor: Professor Stephen Yanoviak

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