



TWENTY-SEVENTH ANNUAL
**GRADUATE
RESEARCH
SYMPOSIUM**

APRIL 3-4, 2019
RAMSEY CENTER
UNIVERSITY CENTER

M.A. Ed., S.,
G. E.,
M., R.

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Sponsored by: Graduate School and Research,
Office of the Provost, Graduate Student Association

**Western
Carolina**
UNIVERSITY

TWENTY-SEVENTH ANNUAL

APRIL 3, 2019

Dear Participants,

Welcome to the Twenty-Seventh Annual Graduate Research Symposium! Since 1992, the Graduate Research Symposium, sponsored by Graduate School and Research, has provided graduate students the opportunity to showcase their scholarly research and projects, and I want to express my sincere appreciation to you for sharing your excellent work with your fellow students, colleagues, and faculty. I wish to express a heartfelt thank you to all participating faculty and student mentors - your active student mentorship, support and encouragement of their research is the hallmark of Western's graduate education experience.

For many students, this will be your first opportunity to share empirical findings and creative works with the academic community. Today, you take a step in becoming recognized as a scholar in your chosen discipline. The skills you learn as part of the research process and your ability to convey that research in writing and in person will enable you to share your knowledge, intellectual passion, and commitment to ideas and to your discipline and profession. Congratulations on this significant milestone in your academic development!

It is my hope that your experience inspires you to continue to contribute to our understanding of all areas of knowledge in the arts, humanities, education, health, social sciences, business, and sciences. You are helping to shape the future and the solutions to important issues facing our region, state, and world, and what you are doing today as students is just the beginning of all you can do to make a true difference. Thank you. I look forward to meeting each of you personally and to talking with you about your important work and your plans for the future.

Please join your faculty mentors, colleagues, and members of the Graduate School at the research posters that will be viewable starting at 3:00 pm on Wednesday, 03 April, at the Ramsey Center. The concurrent oral presentation sessions will be starting at 9:00 am in the University Center on Thursday, 04 April. We have featured undergraduate oral presentations leading to some of the oral sessions to better integrate our graduate and undergraduate research. Our keynote speaker, Dr. Laura Wright, Professor of English at WCU, will deliver her address on Thursday 04 April, at 12:00 pm in the University Center Theater. Following the oral presentations, there will be a reception and awards ceremony, in your honor, in the University Center Grand Room starting at 5:00 PM, on Thursday 04 April. We look forward to seeing you and celebrating your excellence!

Brian D. Kloeppe, Ph.D.
Dean, Graduate School and Research

KEYNOTE ADDRESS

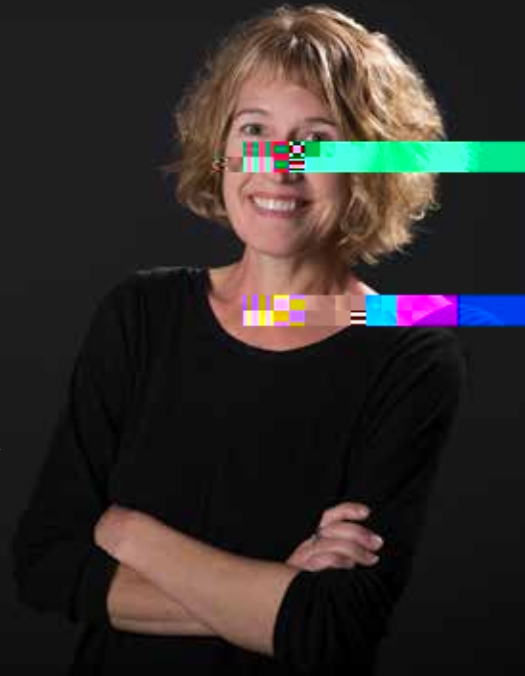
THURSDAY, APRIL 4, 2019 | 12 PM
UNIVERSITY CENTER THEATER

DR. LAURA WRIGHT

PROFESSOR OF ENGLISH
WESTERN CAROLINA UNIVERSITY

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Your Brain on
Metaphor: The Art
and Science of the
Big Picture.



Laura Wright is Professor of English at Western Carolina University, where she specializes in postcolonial literatures and theory, ecocriticism, and animal studies. Her monographs include *Writing Out of All the Camps: J. M. Coetzee's Narratives of Displacement* (Routledge, 2006 and 2009) and *Wilderness into Civilized Shapes: Reading the Postcolonial Environment* (U of Georgia P, 2010). She is lead editor (with Jane Poyner and Elleke Boehmer) of *Approaches to Teaching Coetzee's Disgrace*

and *Other Works* (MLA, 2014). Her most recent monograph, *The Vegan Studies Project: Food, Animals, and Gender in the Age of Terror*, was published by the U of Georgia P in 2015. Her edited collection *Through a Vegan Studies Lens: Textual Ethics and Lived Activism* was published by the University of Nevada Press in February of 2019. University of Nevada Press.



POSTER SESSION

Are You an Ass? Environmental Pressures Impacting College Students' Political Ideologies

Daniel Kerns; Sponsor: April Perry

Examining Gen Z: Coping Skills and Maladaptive Behavior

Jessica Koett; Sponsor: April Perry

Flywheel Impact on WECs' Peak to Average Power Ratio

Connor McIntyre; Sponsor: Bora Karyaka,

Artificial Burrows Mitigate the Effects of Fire-Suppression on the Growth of Juvenile Dusky Gopher Frogs

Joseph Nacy; Sponsor: Joseph Pechmann

The Path to Higher Education: Correlation Between Undergraduate Involvement and Careers in Higher Education

Ashley Palmer; Sponsor: April Perry

Catamount Pride: Experiences of LGBTQ+ Faculty & Staff @ WCU

Dean Paulk; Sponsor: April Perry

Introverts in An Extroverted World: Rethinking Leadership in Higher Education

Ariel Phillips; Sponsor: April Perry

Trailer Thing: Mobile Public Engagement in Art

Kylie Price; Sponsor: Tom Ashcraft

Historical and Contemporary Experiences of Female Students at Western Carolina University

Alexis Rutishauser; Sponsor: April Perry

The Next Generation Neural Prosthesis to Improve Gait in People with Muscle Weakness

Premkumar Subbukutti; Sponsor: Martin Tanaka

Smart Trash Can Based on Image Processing, Automation and Internet of Thing (IOT) Technologies

Rumana Sultana; Sponsor: Yanjun Yan

Student Attitudes Towards Gun Violence Solutions

Adrian Szugye; Sponsor: Josephine Crolley-Simic

Shape-Formation by Swarm Robotics

Anik Tahabilder; Sponsor: Yanjun Yan

Solar Roadway for the Induction Charging of Electric Vehicles using Sustainable Energy Production

Joshua Turnbull; Sponsor: Bora Karayaka

Multilingualism, Language Restriction and Revival: A comparative analysis in language education and policies between Russification efforts in former Soviet territories and Americanization efforts in U.S. colonies

Rachel Walker; Sponsor: Erin Callahan

DNA Polymerase Gamma in the Basidiomycetous Yeast, *Cryptococcus neoformans*

Samuel Walter; Sponsor: Indrani Bose, Jamie Wallen

Not Enough Hours in the Day: A Study on How Being an RA Impacts the Social and Academic Lives of Students

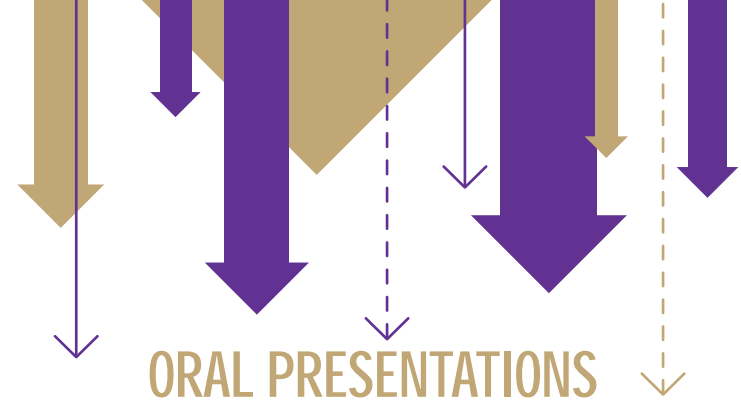
Lila Welsh; Sponsor: April Perry

Teaching Styles and the College Instructor

Jessie Whitman, Rebecca Peterson; Sponsor: Ellen Sigler

The Efficacy of Sexual Education Programs for Individuals with Intellectual Disabilities: Through the Eyes of Facilitators

Davis Wilson; Sponsor: April Perry



ORAL PRESENTATIONS APRIL 4, 2019 | 9:00 AM – 5:00 PM UNIVERSITY CENTER

HIGHER EDUCATION STUDENT AFFAIRS

9:00 – 10:00 AM | UC 215 – CATAMOUNT ROOM

MODERATOR: APRIL PERRY

Imposter Syndrome

Presenter: Morgan Gill, Sophia Calhoun
Sponsor: April Perry

High-Touch Low-Cost Initiatives Provide Low-SES Student Access

Presenter: Dean Martin
Sponsor: April Perry

Introverts in An Extroverted World: Rethinking Leadership in Higher Education

Presenter: Ariel Phillips
Sponsor: April Perry

Telling Their Stories: Barriers to Success

Presenter: Dean Martin
Sponsor: April Perry

HISTORY / ANTHROPOLOGY / SOCIOLOGY

10:00 – 11:00 AM UC 212 – DOGWOOD ROOM

MODERATOR: ALEX MACAULAY

Featured Undergraduate Presenter → Empowerment Against Adversity: The Obstruction of Lithuanian Women's Identities, 1940-1953

Presenter: Emily Johnson

Sponsor: Scott Philyaw

Featured Undergraduate Presenter → Race and Gender Within YA Genre Fantasy: It's Not All White Boys with Swords

Presenter: Ryan Tompkins

Sponsor: Munene Mwanki

From Candlemakers to Conquistadors: How Small Towns Utilize Public History Programs to Engage Youth

Presenter: Mandy Jolly

Sponsor: Alexander Macauley

Blood of Attila: How Early 20th Century Germans Became "the Hun"

Presenter: Franklin Taylor

Sponsor: Vicki Szabo

HEALTH SCIENCES / CHEMISTRY

10:00 – 11:00 AM UC 232 – MULTIPURPOSE ROOM

MODERATOR: RANGIKA KORALEGE

Impact of Exercise as a Component of Treatment for Depression in Young Adults: A Systematic Review

Presenter: Sally Woerner

Sponsor: Marianne Hollis

Characterization of Unmodified and Bleached Peanut Hulls

Presenter: Michael Sands

Sponsor: Carmen Hu man

ENGLISH

11:00 AM – 12:00 PM UC 215 – CATAMOUNT ROOM

MODERATOR: MICHAEL BOATRIGHT

Featured Undergraduate Presenter → Closing the Gap: Roles & Responsibilities of K-12 English as a Second Language (ESL) Teachers for Service Coordination with Speech-Language Pathologists (SLPs)

Presenters: Kelsey Williams, Amelia Wall

Sponsor: Erin Callahan

Sea, The First Final Frontier: Ahab's Self-Reliant Fall and the Presence of Moby-Dick in Modern Science Fiction Horror

Presenter: Diana New

Sponsor: Michael Boatright, Mae Claxton

Education and Hospitality in Appalachia

Presenter: Kellie Willcox

Sponsor: Mae Claxton, Liz Skene

Classical Elocution as a Modern Rhetorical Tool

Presenter: Yustin Riopko

Sponsor: Jonathan Bradshaw



TECHNOLOGY

11:00 AM – 12:00 PM, UC 212 – DOGWOOD ROOM

MODERATOR: SUDHIR KAUL

Controlling Material Stiffness Through Mesoscale Design Using Direct Metal Laser Sintering

Presenter: Terail Clonts
Sponsor: Martin Tanaka

A Novel Engine Head Design Using a Rotary Valve System in Traditional Four-Stroke Internal Combustion Engines

Presenter: Erik Myers
Sponsor: Martin Tanaka

Redesigning a Bicycle Crank Arm for Metal Additive Manufacturing by Applying DFAM Guidelines to the Topology Optimization Process

Presenter: Jeremy Smith
Sponsor: Martin Tanaka, Patrick Gardner, Sudhir Kaul



FINE ARTS / MUSIC

11:00 AM – 12:00 PM, UC 214 – CARDINAL ROOM

MODERATOR: SHELBY HICKS

Featured Undergraduate Presenter → Edward MacDowell's Contributions to American Music During the Late Romantic Period

Presenter: Savannah Bennett
Sponsor: Christina Reitz

Threads of Connection: An Investigation of Environment Through Art

Presenter: Sara Method
Sponsor: Tom Ashcraft, Karen Britt

hear + there

Presenter: Raymond Baccari
Sponsor: Justin Morgan Kennedy

Art and Organizing: Expanding What is Possible through Changing the Frame

Presenter: Mo Kessler
Sponsor: Tom Ashcraft

PSYCHOLOGY / ANTHROPOLOGY / SOCIOLOGY

11:00 AM – 12:00 PM, UC 232 – MULTIPURPOSE ROOM

MODERATOR: DAVID SOLOMON

Featured Undergraduate Presenter → Transgender Athletes and the Media: A 2017 Discourse Analysis

Presenter: Aria Ashburn
Sponsor: Munene Mwanki

Size Matters: Associations Between Personality and Sexual Dysfunction for Men with Penis Concerns

Presenter: Robert Wyatt
Sponsor: David de Jong, David McCord

Perceptions of Self-Deprecating Humor: Relatable or Incompetent?

Presenter: Hannah Buie
Sponsor: Thomas Ford

Humor's Impact on Perceived Trustworthiness: Does Target Matter?

Presenter: Andrew Olah
Sponsor: Thomas Ford

GRADUATE STUDENT PANEL

11:00 AM – 12:00 PM, UC 315 – THEATER

MODERATOR: RACHEL WALKER

DEGREE PLUS

KEYNOTE ADDRESS – DR. LAURA WRIGHT

12:00 – 1:00PM, UC 315 – THEATER

DEGREE PLUS

MBA / PUBLIC AFFAIRS / SOCIAL WORK

1:00 – 2:00 PM, UC 212 – DOGWOOD ROOM

MODERATOR: HEATHER RIMES

Irregularities Between Sustainability Practices and Website Reporting in the Professional Sport Industry: The Case of Major League Soccer

Presenter: Jamee Pelcher
Sponsor: Charles Parrish

A Look at Cross-Sector Collaborations: Maintaining & Enhancing Charlotte's Arts & Science Partnerships

Presenter: Laurie Sickles
Sponsor: Heather Rimes

School to College Pipe-line: Changing the Narrative on Black Males and their Achievement in Education through Access to Post-secondary Education and Post-secondary Completion

Presenter: Samuel Garmon
Sponsor: Tasha Alston, Ricardo Colon, Tacquice Davis

FINE ARTS / ART EDUCATION

1:00 – 2:00 PM, UC 214 – CARDINAL ROOM

MODERATOR: RICHARD TICHICH

Featured Undergraduate Presenter → Our Global Trash Problem

Presenter: Grace Woodard
Sponsor: Karen Britt

Experience and The Essence of What Remains

Presenter: Matthew Hellgeth
Sponsor: Tom Ashcraft

Art as a Practice in Meditation

Presenter: Shelley Steeley
Sponsor: Erin Tapley

ENGLISH / ANTHROPOLOGY / SOCIOLOGY

1:00 – 2:00 PM, UC 232 – MULTIPURPOSE ROOM

MODERATOR: JONATHAN BRADSHAW

Featured Undergraduate Presenter → Understanding the Kardashian Empire and Mass Consumption of Black Culture

Presenter: Drue Stinnett
Sponsor: Munene Mwanki

Recovering and Enacting: The Social Justice Implications of the Racial Enthymeme

Presenter: Crystal Elwood
Sponsor: Jonathan Bradshaw

“Does this Sound Good?”

Presenter: John Falter
Sponsor: Jonathan Bradshaw

Exploring Tragedy Through The Book of Job

Presenter: Grant McMillan
Sponsor: Annette Debo

ENGLISH

2:00 – 3:30 PM UC 215 – CATAMOUNT ROOM

MODERATOR: BRIAN GASTLE

Transcribing and Annotating Manuscripts from Hunter Library’s Special Collections: A Digital Humanities Service-Learning Project

1919 Letter from King George V (Windsor Castle) and Letter from Charles A. Webb to NC Representative Dan Tompkins, 1920

Presenter: Whitney Waters
Sponsor: Brian Gastle

Love Letter from Emily Weigle to NC Representative Dan Tompkins, 1927

Presenter: Andrew Poole
Sponsor: Brian Gastle

Letters from WNC Educator A.C. Reynolds to his daughter, 1948 and 1950

Presenter: Victoria Allen
Sponsor: Brian Gastle

Obituary of Margaret Reynolds, 1915: A Unique Version of a Turn-of-the Century Elegiac Lyric

Presenter: Brittany Grooms
Sponsor: Brian Gastle

PHYSICAL THERAPY

2:00 – 4:45 PM UC 315 – THEATER

MODERATOR: JOHN CARZOLI

Shift Your Learning: Do Focus of Attention Strategies Impact Seated Lateral Excursion Performance and Learning in Adults Post Acute Stroke?

Presenter: Joseph Lopez, Lindsey Greene, Ana Mari Parker, Meredith Suwak, Emily Waugh,
Sponsor: Ashley Hyatt

Foundational Research and Collaboration for Impactful Community Programs for Persons with Parkinson’s Disease

Presenter: Sarah Bailey, Susan Albert, Janie Donaldson, Maria Hammon, Blake Schnurr
Sponsor: Lori Schrodtt

Effects of Core Stability and Fatigue on Backpacking

Presenter: John Knox, Trae Mingus
Sponsor: David Hudson

The Use of Video-based eLearning to Enhance Access to Preventative Musculoskeletal Health Education for Individuals Involved in Agricultural Work

Presenter: msons with ParkinsonModerator: John Carzoli

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TECHNOLOGY



THREE MINUTE THESIS AWARD WINNERS



JUDGES: DANA PATTERSON, SCOTT ELDREDGE, JACK BOLICK, CHRIS ANGEL

FIRST PLACE

Roslyn Gowens, Higher Education Student Affairs

Expected to be Strong: African American Women and Mental Health Resources

SECOND PLACE

Sophia Calhoun, Higher Education Student Affairs

Leaving the Nest: Challenging Authority-Bound Thinking in Teaching Diversity

PEOPLE'S CHOICE

Marija Zaruba, Physical Therapy

Cultivating Musculoskeletal Health in Farmworkers: How Video-Based Education Can Improve Access and Learning

WCU's English graduate programs serve aspiring scholars who wish to become college instructors, professionals who need to develop their skills as writers and editors and teachers who wish to expand their portfolios. Classes are offered at both the main campus in Cullowhee and in Asheville at WCU's Biltmore Park facility. The English Department offers the following graduate degrees:

Master of Arts in English with concentrations in literature, professional writing, and rhetoric and composition (M.A.)

Master of Arts in Education (M.A.Ed.)

Master of Arts in Teaching (M.A.T.)

Certificate in Technical and Professional Writing

Online Certificate in Teaching English to Speakers of Other Languages

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AD, CED