

THE 15TH ANNUAL
**CENTER FOR RESEARCH &
CREATIVITY SYMPOSIUM**

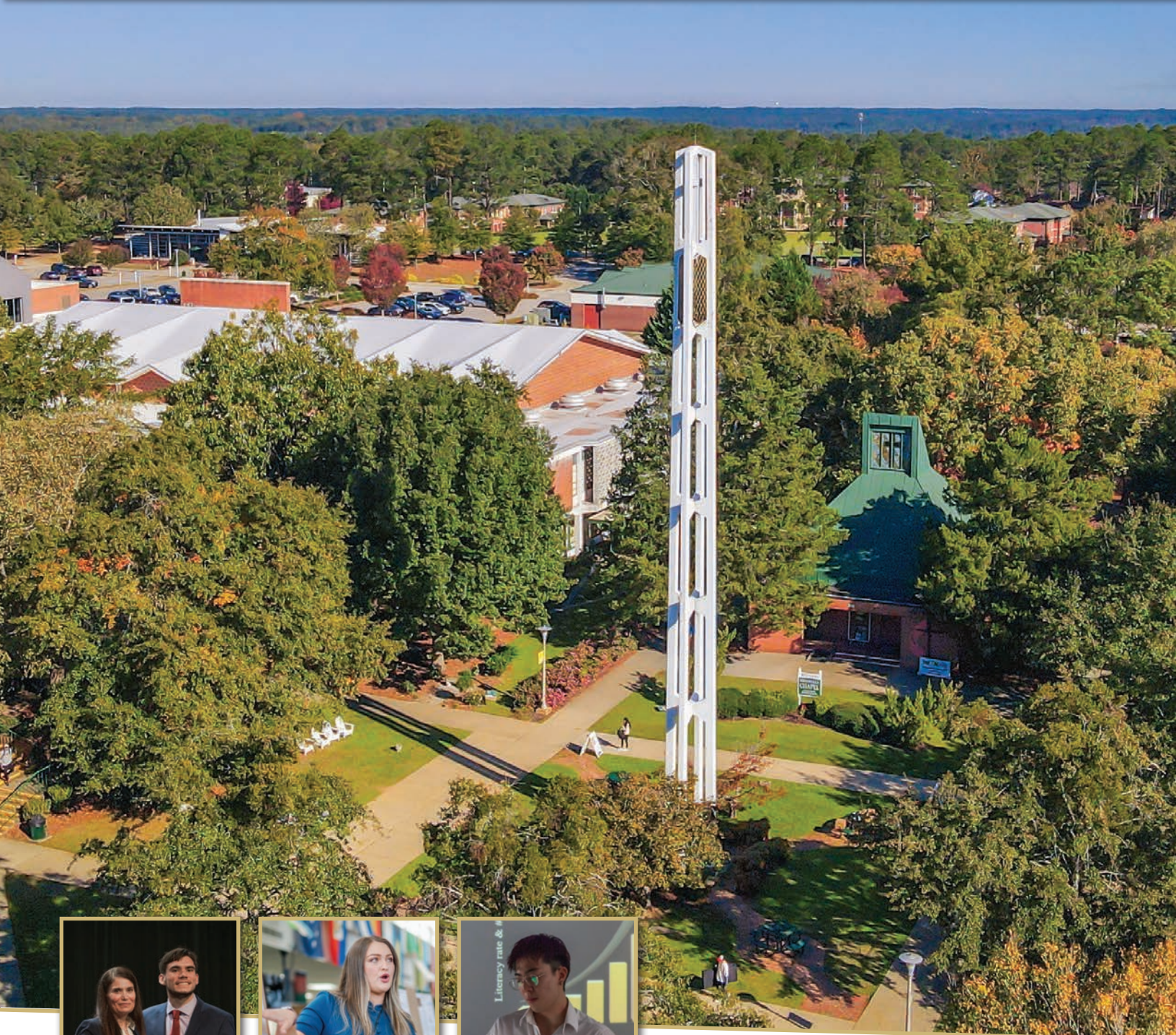


TABLE OF CONTENTS

Agenda..... 3

Week Agenda..... 3

CRC Symposium Agenda 3

Presentation Schedule 4

Oral Presentations 4

Morning Session 4

Afternoon Session..... 5

Poster Session..... 6

Abstracts and Presenters 8

The Ninth Annual Nursing Research & Community Symposium 10

Morning Session..... 14

Afternoon Session 17

B.F. Stone Lyceum..... 22

**MISSION STATEMENT OF THE METHODIST UNIVERSITY
CENTER FOR RESEARCH & CREATIVITY**

The mission of the Methodist University Center for Research & Creativity is to establish educational opportunities that are collaborative and inquiry-based with the intention that every Methodist University student has access to exploratory learning across the curriculum.

“Faculty research and creativity are at the heart of the academic endeavor. Not only do these activities help to create new knowledge and new experience, but they add tremendously to teaching and learning. This work models for students the academic rigor and care involved in knowledge production, engages students in the process itself, and helps students become more critical information consumers for the rest of their lives — a vital skill in today’s environment.”

– Dr. Stanley T. Wearden
President

WEEK AGENDA | APRIL 6-11, 2026

Monday | April 6

7 p.m. D-III Week Celebration Sink Field

Tuesday | April 7

7 p.m. Kimball Award Readings Huff Concert Hall

Wednesday | April 8

9-11 a.m. Fifteenth Annual Center for Research & Creativity Symposium: Morning Presentation Session See Program for Locations

11 a.m.-Noon CIRCUIT: “Speed Faithing” Matthews Ministry Center

Noon-2 p.m. Fifteenth Annual Center for Research & Creativity Symposium: Afternoon Presentation Session See Program for Locations

2-3 p.m. Fifteenth Annual Center for Research & Creativity Symposium: Poster Session* and Ninth Annual Nursing Research and Community Symposium Union-Zukowski Lobby and Gallery

3:30-5 p.m. University Awards Ceremony Huff Concert Hall

5:30 p.m. Phi Kappa Phi Induction Ceremony Stout Complex (Medical Lecture Hall)

7 p.m. B.F. Stone Lyceum - “The Missing Perspective in Psychology: The Image-Fall-Formation Model” Stout Complex (Medical Lecture Hall)

Thursday | April 9

3 p.m. The Profiles of Linda Stein: A Guest Lecture and Discussion with the Artist Bethune Center for Visual Arts, Room 114

6 p.m. Exploring the “Forest Floor”: An Experiential Art Workshop with Adrienne Trego Reeves Fine Arts, Makerspace Room 132

* Posters will be displayed in the Union-Zukowski Lobby and Gallery beginning at 9:00 a.m. Students will be available for questions during the afternoon Poster Session and Nursing Symposium.

MORNING SESSION

INTERDISCIPLINARY: ENGINEERING FAILURES AND SUCCESSES | HENDRICKS 122

9-9:20 a.m.	Everybody's Fault and Nobody's: Command Failure at the Crater	Benjamin Santiago
9:20-9:40 a.m.	The Amalgamation of Engineering Tools for Minecraft Escape Room Construction	Preston Jacocks Matthew Kabi
9:40-10 a.m.	Applying 5S Principles to Standardize 3D Printed Utensils	Lavon Aiken Josie Perry Ana E. Rivera De Leon
10-11 a.m.	Available for Q&A	

INTERDISCIPLINARY: AUTHORITARIANISM AND THE ENVIRONMENT | CHAFFIN 103

9-9:20 a.m.	Conditioned to Survive: Pavlovian Conditioning in Partnoy's <i>The Little School</i> and Orwell's <i>1984</i>	Chloe Simard
9:20-9:40 a.m.	Authoritarianism vs. Democracy on Climate Action: An Analysis of Hungary, Brazil, and Denmark	Lathan Wardworth
9:40-10 a.m.	Assessment of Chemical Contaminants in Local Water and Soil Samples Using Analytical Chemistry Detection Methods	Kaitlyn Craig-Atkinson Faith Driver Angeline Vela Ya'Norie Kinzer Asiah Watts
10-11 a.m.	Available for Q&A	

INTERDISCIPLINARY: AI IN HIGHER EDUCATION RESEARCH TEAM | CLARK HALL (YARBOROUGH AUDITORIUM)

9-10 a.m.	Interdisciplinary: AI in Higher Education Research Team	Heba Mansaf Jehobia Sharon Jujin Premakumar Rishika Singh
10-11 a.m.	Available for Q&A	



AFTERNOON SESSION

INTERDISCIPLINARY: ENGINEERED AND CHEMICAL EFFICIENCIES | HENDRICKS 122

Noon-12:20 p.m.	Zurn Elkay Coil Material Tracking	Armando Ramirez Garcia Jonathan Monter Gabino Grobin Wilbor Bardales Reyes
12:20-12:40 p.m.	Applying the DMAIC Method to improve Workspace Organization in the McLean Health Science Building	Zamon Palmer Daniel Rojas Villagomez Danny Tolentino Cisneros
12:40-1 p.m.	SBR Synthesis Via Solution SBR	Quinten Collinge
1-2 p.m.	Available for Q&A	

PSYCHOLOGY | HENDRICKS 222

Noon-1 p.m.	The Relationship Between Vocational Development, Psychological Flourishing, and Perceived Stress	Tiffany Jacobsen Luca Coleman Tiffany Colter Caroline Peterson Katrin Hambarzumyan Isaac Brown Faith Driver Alexis Irizarry Darnell "DJ" Alexander Patti Busch Makaily Saman Travis Cheek Joemer Dennis Carissa Shepard Israel Cleveland
1-2 p.m.	Available for Q&A	

INTERDISCIPLINARY: HEALTH, CARE, AND DISABILITY | CHAFFIN 103

Noon-12:20 p.m.	Improving Preventive Health Compliance: A Quality Improvement Project	Aryaben Patel
12:20-12:40 p.m.	Communicating Disability: A Critical Disability Theory Analysis of Atypical	Alyssa Sharee Cervantes
12:40-2 p.m.	Available for Q&A	

INTERDISCIPLINARY: CULTURAL AND FINANCIAL TRANSITIONS | CLARK HALL (YARBOROUGH AUDITORIUM)

Noon-12:20 p.m.	Surviving Cultural Genocide: Resistance to Assimilation in Black and Indigenous American Culture	Jade Green
12:20-12:40 p.m.	The Unsettled Account: Financial Closure and Social Order in Postwar South Carolina	Heba Mansaf
12:40-2 p.m.	Available for Q&A	



POSTER SESSION | 2-3 P.M.

Allison Hall Classroom Revamp.....Sina Hassane, Tyler Dowler, Racheal Namara
Dr. Denise H. Bauer, Engineering

Allison Hall Desks.....Summer O’Berry, Luke Hernandez, Brian Johnson
Dr. Denise H. Bauer, Engineering

Pool/Seating Area in Berns Student CenterEmmaculate Phiri, Patrick Ndahimana, Anthony Lopez Cano
Dr. Denise H. Bauer, Engineering

The Redesign of Chick-fil-A Seating..... Jose Pablo Rodriguez Torres, Joseph Howard, Asa Windham
Dr. Denise H. Bauer, Engineering

North Hall Old Veteran’s Student Center.....Jack Haeflinger, Jody Brown, Ella Poulk
Dr. Denise H. Bauer, Engineering

Campus Amphitheatre Revitalization Mason Cary, Gianpiero Testa, Addison Haden
Dr. Denise H. Bauer, Engineering

Enhancing Coil Workflow Efficiency Using DMAIC and Lean Principles Armando Ramirez Garcia,
Jonathan Monter Gabino, Grobin Wilbor Bardales Reyes
Dr. Girish Upreti and Dr. Denise H. Bauer, Engineering

Implementation of an Inexpensive Escape Room in MinecraftPreston Jacocks, Matthew Kabi
Dr. Denise H. Bauer and Dr. Girish Upreti, Engineering

**Implementing the 5S and DMAIC in McLean Health Sciences
Building at Methodist University**Zamon Palmer, Daniel Rojas Villagomez,
Danny Tolentino Cisneros
Dr. Girish Upreti and Dr. Denise H. Bauer, Engineering

Standardizing 3D Printed Utensils for Patients with Parkinson’s DiseaseLavon Aiken, Josie Perry,
Ana E. Rivera De Leon
Dr. Matthew H. Foreman, Occupational Therapy;
Dr. Girish Upreti and Dr. Denise H. Bauer, Engineering

Integrating 3D Technologies into Occupational Therapy EducationKyle Jackson
Stacey Cunningham, Occupational Therapy

The Impact of Health Literacy on Quality of Life Within the Geriatric Population..... Magen Legg, Georgia Locklear
Stacey Cunningham, Occupational Therapy

The Impact of Service Dogs on Psychosocial Outcomes of Veterans with PTSD Christina Herbert
Stacey Cunningham, Occupational Therapy

Emerging Technology in Pediatric Rehabilitation: Virtual Reality for Fine Motor Skill Development TyQuan Murphy,
Victorianna Murray
Stacey Cunningham, Occupational Therapy

Advocacy for Student Funding Sources in Health Science Programs During Fieldwork and Clinicals..... Mariah Graham
Stacey Cunningham, Occupational Therapy

Comparative Chemical & Antimicrobial Profiling of Human Breast Milk and Commercial Infant Formula Using Multimodal Spectroscopy and Microbial Genomics..... Allison Haché
Dr. Vijay Antharam, Chemistry

NMR Chemical Shift Analysis of Common Drugs in Solvents and Effect on Pulse Sequence Grace Padro Rodriguez,
Julia Elizabeth Mundy
Dr. Vijay Antharam, Chemistry

The Mechanism of Pyridine-Catalyzed Reduction of Carbon Dioxide to Methanol..... Quinten Collinge
Dr. Tekalign T. Debela, Chemistry

Does the Acceleration of a Semiconductor Cause a Potential Difference?..... Nejra Idrizović
Dr. Tekalign T. Debela, Chemistry

Artificial Intelligence in Everyday Life: Opportunities, Challenges, and Ethical Concerns Tyler Brown
Dr. Abdulrahman Hafez, Computer Science

Small Island, Strong Institutions: The Role of Institutional Policy in shaping Mauritius's Economic Success Chloe Maria Mukibi
Dr. Protik Nandy, Financial Economics

Elevation of Stress Levels for Students Who Work While Studying for Their Degree..... Vincent Myers
Dr. Paul Knudson, Sociology

Stress, Identity, and Coping: Exploring Mental Health Experiences Among Black College Students Jayla Lee
Dr. Paul Knudson, Sociology

The Critical Role That Campus Engagement Plays in Psychological Flourishing, Stress Resilience, and Vocational DevelopmentDarnell “DJ” Alexander, Tiffany Jacobsen
Dr. Katharine Snyder, Psychology

The Impact of Equine-Assisted Services on Daily Function in the Pediatric Population ... Isabella Bradley, Ina Womack
Dr. Matthew Foreman, Occupational Therapy

A Pre-Post Survey of Concussion Knowledge and Attitudes Following an Educational Protocol for Parents of Youth Ice Hockey Players.....Laura Rendler
Dr. Matthew Foreman, Occupational Therapy

What Worked, What’s Next: Virtual Reality in Motor Rehabilitation for Parkinson’s DiseaseKamryn Bell, Khaile Jones
Dr. Matthew Foreman, Occupational Therapy

Virtual-Reality-Based Training for Fine Motor Hand Movements in Adults with Parkinson’s Disease Stage I-III: A Case Study Charli Rosenberg, Jules Roska,
Hunter Vaughan
Dr. Matthew Foreman, Occupational Therapy

3D Printing for Orthosis Fabrication: A Survey of Occupational Therapists and Other Rehabilitation Professionals Deanna Glus, Kayla McIntosh
Dr. Matthew Foreman, Occupational Therapy

Future Directions in OT: Gathering Student Perspectives on the Role of 3D Printing in Orthosis Development Dawson Blanchard
Dr. Matthew Foreman, Occupational Therapy

Adaptive Clothing: Barriers and Supports Identified by OTPs, Patients, and Caregivers Across Lifespan and Diagnosis Hannah Reese
Dr. Annabeth Knight, Occupational Therapy

The Role of Occupational Therapy in Pelvic Health Management Following Hysterectomy..... Charity Faragoi
Dr. Annabeth Knight, Occupational Therapy

Occupational Therapy for Improved Health and Role Adaptation in Mothers Within 6-8 Weeks Postpartum Courtney Jones
 Dr. Annabeth Knight, Occupational Therapy

Retained Primitive Reflexes and Fine Motor Skills in Relation to Scholastic Performance in School-Age Children.....Logan Cameron, Hannah Wheelless
 Dr. Annabeth Knight, Dr. Katherine Jones, and Chanelise Garcia, Occupational Therapy

Shaping Sensory-Supportive Classrooms: Teachers’ Perspectives on Environment, Behavior, and Collaboration Savanna Myers
 Dr. Katherine Jones, Occupational Therapy

Exploring the Impact of Childhood Hospitalization: A Survey on Patient Recollection, Environmental Influence, and Psychosocial Factors.....Briana Oakley
 Dr. Charlotte Navarro and Dr. Katherine Jones, Occupational Therapy

Slipping Through the Cracks: Identifying Barriers to Successful Transitional Programming for Youth Aging Out of Foster Care.....Josephine Samuelian, Elena Schmidt
 Dr. Charlotte Navarro, Occupational Therapy

Interprofessional Education and Its Impact on Clinical Performance in Acute Care Settings: Communication, Transfer of Skills, and Advocacy..... Elizabeth Mazingo, La’Tanasia Dockery
 Dr. Charlotte Navarro, Occupational Therapy

How Does Nutrition Affect Occupational Performance in Parkinson’s Disease?.....Morgan Quinn, Hayley Smith, India Harper
 Dr. Sheri Michel, Occupational Therapy

Exploring a Need for Occupational Therapy in an Underdeveloped Country, Specifically Laos, Asia..... Madison Vang, Diamond Franklin
 Dr. Sheri Michel, Occupational Therapy

The Effects of Therapy Dogs on Stress Levels in Undergraduate College Students During Final Exam Weeks..... Alison Eldridge
 Dr. Sheri Michel, Occupational Therapy

A Student Life Gap: Exploring the Occupational Needs of On-Campus College Students with Food Allergies Leah Strickland
 Dr. Meredith Gronski, Occupational Therapy

The Ninth Annual Nursing Research & Community Symposium

April 8 | 2-3 p.m.

The Impact of Animal-Assisted Therapy on Pain Adaptation in Adult Oncology Patients: A Nursing Perspective

Jennifer Byrd

Many adult oncology patients undergoing chemotherapy experience refractory pain despite pharmacological treatment. This persistent pain reflects an ineffective response to chemotherapy-related stimuli. Animal-Assisted Therapy (AAT) has been identified as a potential complementary intervention for pain management. Guided by Calista Roy's Adaptation Model, this study proposes introducing AAT as a contextual stimulus to promote adaptive responses in oncology patients. A randomized single-blind controlled study will examine whether twice-weekly registered AAT sessions during a six-week treatment period reduce reported pain scores compared to standard care without animal interaction. Blinded researchers will collect pain scores at baseline and weekly intervals using the Numeric Rating Scale. Findings are expected to demonstrate that AAT is a low-risk, high-value intervention that improves quality of life and reduces pain among adult oncology patients undergoing chemotherapy.

The Impact of Trauma-Informed Nursing Care on Mental Health Outcomes in Adult Sexual Assault Survivors

Aireina Clinton

Sexual assault is a significant public health issue associated with psychological consequences including anxiety, depression, and post-traumatic stress disorder. Nurses are often the first healthcare professionals to interact with survivors in emergency and outpatient settings, making their approach critical to recovery. Traditional care practices may unintentionally contribute to re-traumatization when emotional trauma is not addressed. Trauma-informed nursing care emphasizes safety, trust, empowerment, and patient-centered communication. This study proposes a case-controlled cohort design comparing survivors receiving trauma-informed nursing care with those receiving standard care. Outcomes measured include PTSD symptoms, anxiety, depression, and engagement in follow-up care. The study aims to determine whether trauma-informed nursing interventions improve psychological recovery and healthcare participation among survivors. Results may support the development of standardized trauma-informed nursing education and practice protocols.

The Effect of Excessive Screen Time on the Cognitive Development of Elementary-Age Students

Virginia Crews

Technological advancements have created a highly digital environment for children. While technology can enrich learning, excessive screen time has raised concerns regarding its impact on cognitive development. This systematic review examines the

relationship between screen exposure and cognitive outcomes among children aged birth through ten years. Studies published between 2016 and 2025 were analyzed to identify both positive and negative effects. Findings indicate that excessive screen time correlates with decreased academic performance, delayed language development, and reduced cognitive growth. However, interactive and educational digital content demonstrated potential benefits when used appropriately. The review recommends limiting total screen time to less than three hours daily and restricting non-educational content to thirty minutes per day. Both the quality and quantity of screen exposure must be considered to promote healthy cognitive development.

Mental Health Care Experiences of Middle-Aged Muslim Men: A Systematic Review of Nurse-Patient Interactions

Iqbal Ismaciil

Mental health disparities remain prevalent among culturally diverse populations, including Muslim men experiencing conditions such as depression. Cultural stigma, socioreligious expectations, and healthcare system barriers influence how individuals interact with mental health professionals. This systematic review followed PRISMA guidelines and examined literature from CINAHL and PubMed addressing nurse-patient interactions involving Muslim men with mental health conditions. From an initial pool of 2,175 articles, fifteen studies met inclusion criteria. Thematic analysis revealed several recurring themes including culturally competent communication, respect for Islamic values, acknowledgment of religious coping practices, and sensitivity to stigma surrounding mental illness. Trust-building behaviors and culturally aware care improved therapeutic relationships, whereas cultural misunderstandings reduced openness in clinical interactions. Findings highlight the importance of culturally informed nursing practice to promote equitable mental health outcomes.

Health Disparities and Health Literacy Among Native Americans

Melissa Mann

Native American communities experience significant health disparities and limited health literacy, contributing to poorer health outcomes. The Eastern Band of Cherokee Indians in North Carolina identified improved access to healthcare and preventive education as key needs in their Tribal Health Assessment. This study examines how health disparities and limited health literacy influence health-seeking behaviors within Native American populations. Guided by the Health Belief Model, the research explores cultural values related to perceived susceptibility, benefits, barriers, and action. The project proposes a collaborative medical mission working

alongside the Eastern Band of Cherokee Indians to provide health literacy education and preventive health screenings. The goal is to empower tribal members through culturally appropriate education and improved access to healthcare resources.

Methods of Hand Hygiene to Prevent Healthcare-Associated Infections: Which Is Best?

Zariah Mosley

Healthcare-associated infections (HAIs) remain a major concern in acute care settings, particularly for immunocompromised patients. Proper hand hygiene practices, including soap-and-water washing and alcohol-based sanitizers, are essential for interrupting pathogen transmission. This systematic review compares the effectiveness of these two methods in preventing HAIs among hospitalized adults. Using PRISMA guidelines, databases including PubMed, CINAHL, and Google Scholar were searched for peer-reviewed studies examining hand hygiene practices and infection outcomes. Twenty studies met the inclusion criteria. Findings demonstrate consistent evidence supporting hand hygiene as a critical infection prevention strategy, though effectiveness varies depending on clinical context and pathogen type. Results support continued emphasis on evidence-based infection prevention practices and improved compliance strategies within healthcare settings.

Promotion of Mental Health and Suicide Prevention for Incarcerated Women

Brooke Murrell

Depression is a major risk factor for suicide among incarcerated populations, with suicide being the leading cause of death in prisons. Female inmates experience higher suicide rates than male inmates, yet mental health resources remain limited in correctional settings. This scoping review examines suicide prevention programs, particularly the use of suicide contracts, within female prisons. Using PRISMA-ScR guidelines, literature searches were conducted using PubMed and EBSCO for studies published after 2015. Results revealed that suicide contracts are typically part of larger multi-component prevention programs rather than standalone interventions. Findings suggest the need for expanded suicide prevention strategies including staff education, improved screening practices, and supportive prison

environments. Increased research and program development are necessary to reduce suicide risk among incarcerated women.

Secondary Data Analysis of Vaccine Safety Studies Applying the 2025 U.S. Childhood Vaccine Schedule to the “Controlled Vaccine RCTs (Living List)”

Savanna Necessary

Childhood immunization schedules are based on extensive clinical research demonstrating vaccine safety and effectiveness. This study conducts a secondary data analysis of the “Controlled Vaccine RCTs (Living List)” database to evaluate evidence supporting vaccines included in the 2025 U.S. childhood immunization schedule. Using PRISMA systematic review methods, randomized placebo-controlled trials involving children from birth through eighteen years were examined. Of 1,698 trials screened, 120 met the inclusion criteria. Most eligible studies involved pertussis-containing vaccines. Findings highlight the importance of transparent evidence evaluation when interpreting vaccine safety research and emphasize the role of nurses in educating families about immunization decisions and public health policies.

Family-Centered Lifestyle Education and Its Effects on Childhood Obesity in Low-Income Prepubescent Children

Alyssa Rivas

Childhood obesity remains a major public health concern in the United States, particularly among low-income prepubescent children. Limited access to healthy foods, reduced physical activity, and inadequate health education contribute to rising obesity rates. This systematic review evaluates family-centered lifestyle education programs designed to promote healthier eating habits and physical activity. Guided by Vygotsky’s Zone of Proximal Development, the intervention model emphasizes parental involvement and shared family responsibility in lifestyle changes. Literature searches identified eighteen relevant studies examining family-based obesity interventions. Findings suggest that programs incorporating parental guidance and family participation are more effective at promoting sustainable behavioral changes among children. Additional research is needed to evaluate structured interventions specifically targeting low-income populations.



It's Not in Your Head: A Scoping Review of Sex-Based Health Disparities in Clinical Evaluation and Treatment

Margaret Roe

Sex-based disparities in healthcare remain well documented, particularly among adults presenting with subjective symptoms such as pain and fatigue. Women are more likely than men to experience symptom dismissal, delayed diagnosis, and undertreatment. This scoping review examines literature addressing disparities in healthcare evaluation and treatment between men and women. Following PRISMA-ScR guidelines, databases including PubMed, CINAHL, PsychINFO, and ScienceDirect were searched for studies comparing male and female patient experiences. Preliminary findings indicate consistent patterns of differential symptom attribution, diagnostic testing, and treatment decisions based on sex. Mapping these disparities may inform future clinical practices, educational initiatives, and research aimed at reducing gender-based inequities in healthcare.

Optimizing Care for Neonatal Abstinence Syndrome: A Comparison of Eat Sleep Console with Morphine or Buprenorphine

Bailey Snow

Neonatal Abstinence Syndrome (NAS) is an increasing public health concern associated with perinatal substance exposure and prolonged hospital stays. Traditional management relies on pharmacologic treatments, though newer approaches emphasize non-pharmacological interventions such as the Eat-Sleep-Console (ESC) model. This study compares three treatment strategies for infants with NAS: ESC, morphine therapy, and buprenorphine therapy. Outcomes evaluated include hospital length of stay, medication use, and readmission rates. Evidence suggests that the ESC model significantly reduces hospitalization duration and medication requirements while supporting family-centered care. When pharmacologic treatment is necessary, buprenorphine demonstrates improved outcomes compared to morphine. Findings support incorporating ESC as a first-line approach for NAS management.

A Study of Clinical Competency in Cardiopulmonary Arrest on Critical Care Units: Novice Nurses versus Experienced Nurses

Hannah Spexarth

Cardiac arrest affects over 600,000 individuals annually in the United States, with many events occurring in critical care units. New graduate nurses frequently report feeling underprepared to respond effectively to cardiac arrest situations. This scoping review examines the role of simulation training in improving critical care nurse competency and confidence during cardiopulmonary resuscitation events. Using PRISMA-ScR guidelines, literature published within the past ten years was reviewed using keywords related to cardiac arrest, nurse residency programs, and critical care competency. Findings suggest that simulation-based training improves response times,

enhances clinical decision-making, and contributes to better patient outcomes. Incorporating cardiac arrest simulation training into nurse residency programs may strengthen preparedness and reduce stress among new critical care nurses.

The Invisible Barrier: Linking Nurse Burnout to Missed Care in the Emergency Room and Trauma Centers

Jasmin Valdes

Emergency and trauma resuscitation requires rapid, error-free clinical decision-making. Nurse burnout, characterized by mental and emotional exhaustion, may contribute to missed or incomplete patient care in high-acuity settings. This systematic review examines the relationship between nurse burnout and missed nursing care during trauma resuscitation. A PRISMA-guided search of CINAHL, EBSCOhost, and PubMed identified twelve relevant studies published between 2020 and 2026. Findings demonstrate a strong correlation between clinician burnout and increased rates of incomplete clinical tasks. Nurses with higher burnout scores were significantly more likely to miss required care activities, particularly monitoring tasks during the "ABCDE" trauma assessment. These results highlight the importance of addressing burnout as a patient safety issue within emergency and trauma care environments.

Standardized Transcranial Doppler Training Protocols

Nancy Yonts-Caballero

Early identification of increased intracranial pressure is critical in neurocritical care. Transcranial Doppler (TCD) ultrasonography offers a non-invasive method for estimating intracranial pressure using the Pulsatility Index, though its use is limited by operator variability. This randomized controlled trial examines whether standardized competency-based training for neuro-intensive care nurses improves measurement reliability. Participants will be randomly assigned to structured training or traditional instruction. Inter-observer reliability will be evaluated using the Intraclass Correlation Coefficient immediately following training and at three-month follow-up. The study aims to improve consistency in TCD interpretation and expand the clinical utility of this non-invasive monitoring technique in neurocritical care settings.

Community Posters

Social Media and Poor Mental Health Among College Students

Daniella Westover, Noa Mungia, Nick Garza, Charles Drew

This community health nursing project examines social media use among college students. Health program planning will be used to identify and develop interventions and recommendations to promote responsible social media use among this population.

Breaking Barriers to Human Papillomavirus (HPV) Vaccination: Addressing Hesitancy and Misinformation

Gabrielle Marquez, Zayra Trevino, Jasmine Flores

This community health nursing project investigates human papillomavirus (HPV) vaccination rates among adolescents in North Carolina. Health program planning will guide the development of interventions that will address vaccine hesitancy and clarify misinformation.

The Role of Social Determinants of Health in Racial and Ethnic Disparities in Sexually Transmitted Infections Among Adolescents and Emerging Adults in North Carolina

Jean Marie Saint-Hilaire, Nivana Smythe, Giselle Ramirez

Adolescents and emerging adults of color in North Carolina experience high rates of sexually transmitted infections (STIs). Health planning strategies—health promotion and risk reduction—will be used to develop interventions to reduce STIs in this population.

Let's Talk About Sex (Education)!

Savannah Hovander, Allie Sweat, Emma Wilson

This community health nursing project will examine adolescent pregnancy rates in Cumberland County. Health planning strategies—health promotion and risk reduction—will be used to develop interventions to reduce pregnancy rates in this population.

Beyond the Bullet: Gun Violence and Adolescent Mental Health

Bianca Zermeno, Karla Arteaga-Cuenca, Michelle Bradley

This community health nursing project examines the relationship between gun violence exposure and mental health outcomes among children and adolescents in North Carolina. Health program planning strategies will be used to develop evidence-based interventions and recommendations to support violence prevention and mental health in this population.

Postpartum Depression in Single Mothers

Elizabeth Benoit, Celene Morgan, Maluhiaonalani Rivera

This community health nursing project will examine postpartum depression among single mothers in the United States. Health program planning will be used to develop evidence-based community health nursing interventions to reduce postpartum depression in this population.



The 15th Annual Center for Research & Creativity Symposium

April 8 | 9 a.m–3 p.m.



MORNING SESSION | HENDRICKS 122

INTERDISCIPLINARY: ENGINEERING FAILURES AND SUCCESSES

9-9:20 a.m.

Everybody's Fault and Nobody's: Command Failure at the Crater

Benjamin Santiago | Senior; History; Fayetteville, NC
Advisor: Dr. Patrick O'Neil, History

The Battle of the Crater is often remembered as an engineering triumph that collapsed into a tactical disaster, and explanations of the defeat are usually reduced to a search for one man to blame. This submission argues that the Crater is best understood as a cascading failure across the Union chain of command, where responsibility was spread so widely that effective control vanished at the moment it mattered most. At the high-

command level, Generals Grant and Meade altered General Burnside's operational design and imposed constraints that made success more fragile while still demanding a decisive breakthrough. At the middle-command level, Burnside failed to preserve unity of effort after those changes, most notably by allowing the lead assault force to be chosen by lot rather than retaining a prepared spearhead. At the front-line level, division leadership collapsed inside the breach as units crowded into the crater, lost direction, and lacked visible commanders capable of restoring momentum under fire. By comparing wartime decisions with the post-battle Court of Inquiry and the Joint Committee on the Conduct of the War, the paper suggests how competing investigations turned operational failure into a political struggle over culpability and reputation.

9:20-9:40 a.m.

The Amalgamation of Engineering Tools for Minecraft Escape Room Construction

Preston Jacocks | Senior; Engineering; Lexington, SC
Matthew Kabi | Senior; Engineering; Atlanta, GA
Advisors: Dr. Denise H. Bauer and Dr. Girish Upreti, Engineering

Minecraft gives opportunities to apply tools and resources to create worlds that can lead to personal growth creatively, mentally, and critically; as the rising consumerism climate denies challenge-seeking intelligent individuals, the Minecraft market and games offer the opportunity to express critical thinking skills and communication in an inexpensive

manner. Our study was to determine how the engineering design process was used and implemented to fit engineering process standards using the Minecraft Escape Room. Engineering tools are the main source for designing structures, layouts, and reliability to ensure that the entire map is done properly and up to code. Continuous improvement, human system integration, feedback loops, verification and validation are just some of the main tools used in this study. These four components lay the foundation for the proper engineering design process, not only in our study but for real world engineering applications. In this presentation, we will explore the concept of continuous improvement, how it relates to building, revising, and maintaining the Minecraft Escape Room, and how it can be used outside of the escape room. This will show that engineering tools are applicable and versatile to any structure, design, or system.

9:40-10 a.m.

Applying 5S Principles to Standardize 3D Printed Utensils

Lavon Aiken | Senior; Engineering; North Charleston, SC
Josie Perry | Senior; Engineering; Hope Mills, NC
Ana E. Rivera De Leon | Senior; Engineering; Cobán, Guatemala
Advisors: Dr. Matthew Foreman, Occupational Therapy; Dr. Girish Upreti and Dr. Denise H. Bauer, Engineering

Parkinson's Disease affects cognition, emotion, and motor function, which makes it difficult for those with the disease to use certain items such as utensils. While 3D printing offers a low-cost and more customizable approach to producing adaptable devices, there are many existing designs that lack a standardized process, which limits their usability in clinics with minimal technical knowledge. The objective of this research is to develop

a standardized process for designing, modifying, and 3D printing adaptive utensils tailored to individuals with Parkinson's disease in collaboration with occupational therapy (OT) professionals and students. By focusing on standardization using the Sort, Set in Order, Shine, Standardize, Sustain (5S) methodology, the team will evaluate how 5S principles can be applied to the design and fabrication workflow, including organizing digital design files, defining consistent printing parameters, and creating clear documentation that can be followed by OT professionals with limited 3D-printing experience. Feedback from OT students will be used to understand which steps are essential, which can be simplified, and how variability in printing outcomes can be reduced and ensure consistency and reproducibility across all clinical departments. The resulting process will demonstrate how structured process organization can reduce variability in production and support efficient fabrication and implementation of 3D printed utensils.

MORNING SESSION | CHAFFIN 103
INTERDISCIPLINARY: AUTHORITARIANISM AND THE ENVIRONMENT

9-9:20 a.m.

Conditioned to Survive: Pavlovian Conditioning in Partnoy's *The Little School* and Orwell's *1984*

Chloe Simard | Senior; Biology; Haverhill, MA
 Advisor: Dr. Kelly Walter Carney, English

This paper analyzes how authoritarian regimes use classical (Pavlovian) conditioning to produce automatic obedience as seen in Alicia Partnoy's *The Little School* and George Orwell's *1984*. Using Ivan Pavlov's theory of classical conditioning, the paper shows how repeated pairings of punishment with neutral stimuli can transform ordinary actions, objects, and ideas into triggers of fear and submission, both in nonfiction and

fiction respectively. In *The Little School*, Partnoy's firsthand account reveals how silence, blindfolds, and basic human needs become conditioned signals of violence, training the prisoners' bodies to comply before conscious thought intervenes. In *1984*, Orwell expands this mechanism to a societal scale, where surveillance, propaganda, and torture condition emotional and cognitive responses such as hatred, guilt, and ideological loyalty. Together, these texts demonstrate how fear becomes reflexive, obedience becomes internalized, and resistance requires deliberate effort. By analyzing Partnoy's memoir and Orwell's dystopian novel through the lens of Pavlovian conditioning, this paper exposes the psychological machinery behind authoritarian control and highlights how power is maintained not only through force but through learned fear.

9:20-9:40 a.m.

Authoritarianism vs. Democracy on Climate Action: An Analysis of Hungary, Brazil, and Denmark

Lathan Wardworth | Freshman; Political Science, Sociology; Plano, TX
 Advisor: Dr. Paul Knudson, Sociology

There has been a growing narrative among certain public opinion elites that democracy—because of its slower and deliberative structure—is ill-equipped to confront the societal challenges of climate change. Some of these opinion leaders argue that authoritarian leadership structures

are better suited to confront climate change as climate scientists tell the public that rapid policy shifts are needed to address this global crisis. These elites contend that top-down, hierarchical leadership structures can more efficiently put climate policies into place. Drawing on case studies of public policies, climate programs, administrative actions, and data on CO2 emissions in Hungary, Brazil, and Denmark, this paper analyzes that assertion and calls into question the arguments of these opinion leaders. The findings of this study can inform both the public and policy makers in the area of climate response and climate action.

9:40-10 a.m.

Assessment of Chemical Contaminants in Local Water and Soil Samples Using Analytical Chemistry Detection Methods

Kaitlyn Craig-Atkinson | Senior; Biology; Fayetteville, NC
 Faith Driver | Senior; Psychology; Whispering Pines, NC
 Angeline Vela | Senior; Biology; Fayetteville, NC
 Ya'Norie Kinzer | Senior; Biology; Columbus, GA
 Asiah Watts | Senior; Biology; Raeford, NC
 Advisor: Dr. Stephanie Hooper Marosek, Chemistry

The composition of water and soil can be influenced by their surroundings in many ways, ranging from pH to the presence of

chemical compounds such as nitrates and other dissolved solids. This study involves 6 total samples collected from the Methodist University Matthews Ministry drainage gate, Hendricks Science Complex, Lake Rim, and an off-campus residence within the Fayetteville area, and focuses on comparing sample concentrations versus recommended regulations and comparisons with stocks and reagents to determine levels of chemical contamination, such as ferrous iron and hexavalent chromium, within them through methods including pH, chlorine, cyanuric acid, and alkalinity testing, filtration, and spectroscopy. These compiled experiments, with sample-dependent results, serve not only to demonstrate the effectiveness of these detection methods but also to highlight the levels of potential chemical exposure in day-to-day life.

**MORNING SESSION | CLARK HALL (YARBOROUGH AUDITORIUM)
INTERDISCIPLINARY: AI IN HIGHER EDUCATION RESEARCH TEAM**

9-10 a.m.

Systemic Constraints and the Limits of Pedagogical Change

Heba Mansaf | Senior; History, Political Science; Cary, NC
Jehobia Sharon Jujin Premakumar | Senior; Computer Information Technology, Cybersecurity & Information Assurance; Fayetteville, NC
Rishika Singh | Senior; Biology; Fayetteville, NC
Advisor: Dr. Carl Dyke, History

Large institutions favor continuity over transformation, as even disruptive interventions leave established structures intact. Since Fall 2023, this research has utilized interviews and classroom observations to prompt questions about the integration of generative artificial intelligence in higher education. The university, a complex adaptive system, effectively neutralized the potential for radical change through significant effort, as our initial hypotheses regarding policy-driven behavioral shifts proved inaccurate. Instead, each intervention prompted small adjustments by students, instructors, and administrators. Actors refined assignment structures and recalibrated enforcement

mechanisms, as these adaptations deposited into the sedimented patterns of assessment and institutional legitimacy. To explain these outcomes, the research examines how structuring constraints operate simultaneously at individual, classroom, and institutional levels. We distinguish between functional constraints tied to learning, symbolic constraints tied to the display of competence, and vestigial constraints that persist after their original purpose expires. While these pressures appear divergent in isolation, together they produce coordinated system behavior. Requirements linked to visible outputs travel with greater velocity than those tied to the process of learning. Generative AI remains particularly effective at meeting these visible expectations, as it produces polished artifacts that satisfy formal markers while bypassing intellectual engagement. We refer to this output as ‘workslop,’ as AI accelerated an existing dynamic by lowering the cost of meeting established expectations. Ultimately, this structural persistence confirms that stability emerges through a continuous process of distributed adjustment, as nested components prioritize institutional homeostasis. This research provides a systems-level account of the university as an antifragile organism, demonstrating why widespread technological adoption produces absorption over transformation.

**CIRCUIT | 11 A.M. | MATTHEWS MINISTRY CENTER CHAPEL
“SPEED FAITHING” | NEJRA IDRIZOVIC, MODERATOR
JUNIOR, ENGINEERING MAJOR & B.R.A.I.D. FELLOW, INTERFAITH AMERICA**

Speed Faithing is a fast-paced, interactive dialogue experience designed to foster meaningful conversation across religious, spiritual, and philosophical differences. In this format, a variety of student, faculty, and staff presenters each share a brief reflection on what gives meaning and direction within their practiced religion or worldview. Following each short presentation, participants are invited into open Q&A and dialogue, creating space for honest questions and thoughtful engagement. The

conversation is guided with care, curiosity, and respect. As part of the Research Symposium, this program highlights religious and worldview literacy as an essential dimension of human understanding and academic inquiry, inviting participants to reflect more deeply on their own beliefs and the role they play in shaping how we live, learn, and lead. A light lunch will be provided.



AFTERNOON SESSION | HENDRICKS 122

INTERDISCIPLINARY: ENGINEERED AND CHEMICAL EFFICIENCIES

————— Noon-12:20 p.m. —————

Zurn Elkay Coil Material Tracking

Armando Ramirez Garcia | Senior; Engineering; Lumberton, NC
Jonathan Monter Gabino | Senior; Engineering; St. Paul's, NC
Grobin Wilbor Bardales Reyes | Senior; Engineering; Lumberton, NC
Advisors: Dr. Girish Upreti and Dr. Denise H. Bauer, Engineering

At the Zurn Elkay Lumberton manufacturing site, manual steel coil tracking and job reconciliation have led to excess inventory, production delays, and labor inefficiencies. Coil data is recorded by hand, job packets are physically stored, and coil usage is verified by a single employee through time-consuming reconciliation in Oracle. This process limits traceability, increases the risk of errors, and delays replenishment decisions, contributing to elevated on-hand inventory and avoidable

downtime. This presentation focuses exclusively on the application of Lean principles to improve the coil tracking process by eliminating non-value-added activities and improving overall process flow. From a Lean perspective, the current workflow contains several forms of waste, including waiting during reconciliation, excess motion from searching physical records, overprocessing caused by repeated data entry, defects resulting from inaccurate or incomplete job documentation, and excess inventory in full and partial coils. Lean analysis is used to distinguish value-added from non-value-added steps and identify the root causes of inefficiency. The future-state process emphasizes standardized work and improved material flow. These Lean-driven improvements reduce manual effort, improve traceability, lower on-hand inventory levels, and support a more efficient and responsive production environment.

————— 12:20-12:40 p.m. —————

Applying the DMAIC Method to improve Workspace Organization in the McLean Health Science Building

Zamon Palmer | Senior; Engineering; Mullins, SC
Daniel Rojas Villagomez | Senior; Engineering; Red Springs, NC
Danny Tolentino Cisneros | Senior; Engineering; Red Springs, NC
Advisors: Dr. Girish Upreti and Dr. Denise H. Bauer, Engineering

This study focuses on the application of the DMAIC method to improve the organization and efficiency of the pediatric physical therapy room of the McLean Health Science Building at Methodist University. Observations revealed cluttered and inconsistent storage practices, some unclear material locations, and layouts that would increase search time for students and staff. This presentation focuses on how the DMAIC formed the problem-solving process and guided the decision-

making process to improve the pediatric physical therapy room layout. During the Define phase, key groups were identified and the main issues involving accessibility, clutter, and workflow interruption were documented. In the Measure phase, our team collected baseline data regarding the room dimensions, the storage areas, and the quantity of items located within the space. In the Analyze phase, we noticed that the lack of space was not the problem; it is the lack of organization that causes everything to look so cluttered and disorganized. In the Improve phase, we focused on reorganizing the workspace based on the size of the items and how often they are used. In the control phase, procedures will be recommended to sustain the organization of the areas. Together, these actions display how not only DMAIC supports the identification of the problem, but also the development of solutions that increase efficiency, safety, and overall usability in the environment.

————— 12:40-1 p.m. —————

SBR Synthesis Via Solution SBR

Quinten Collinge | Senior; Chemistry; Calabash, NC
Advisor: Dr. Eun Hoo Kim, Chemistry

Styrene-Butadiene Rubber (SBR) is a pivotal synthetic elastomer used extensively in applications requiring high abrasion resistance and durability, such as tire treads and industrial coatings. The material properties of SBR are critically dependent on the copolymer's composition and the microstructure (1,4- vs. 1,2-addition) of the polybutadiene segments. The objective of this study was to successfully synthesize SBR via Solution SBR (S-SBR) with benzoyl peroxide and to determine if a single step reaction will produce the same results as a two-

step reaction. The formation of SBR for both reactions was confirmed from NMR spectrometry and IR spectrometry, but both were oxidized. The NMR indicated a C=C aromatic ring peak from styrene as well as CH and CH₂ peaks from 1,3-butadiene. The IR indicated oxidation with a peak at 1270 cm⁻¹ for both reactions. The single step reaction showed better polymerization of styrene and 1,3-butadiene than the two-step reaction. Both reactions also had the same yield percentage of 72%. The results have indicated that the single step reaction produced a polymer with less variation in structure than the two-step reaction. This more uniformed polymer with a single step reaction is faster and more consistent and better for an industry standard. The yields were similar, but the properties were studied to see how they differed.

AFTERNOON SESSION | HENDRICKS 222
PSYCHOLOGY

Noon-1 p.m.

The Relationship Between Vocational Development, Psychological Flourishing, and Perceived Stress

Tiffany Jacobsen | Senior; Psychology; Gloucester, VA
 Luca Coleman | Junior; Psychology; Fayetteville, NC
 Tiffany Colter | Senior; Psychology, Criminal Justice; Hope Mills, NC
 Caroline Peterson | Senior; Psychology; Rocky Point, NC
 Katrin Hambarzumyan | Senior; Psychology; Yerevan, Armenia
 Isaac Brown | Senior; Psychology; Fayetteville, NC
 Faith Driver | Senior; Psychology; Whispering Pines, NC
 Alexis Irizarry | Junior; Psychology; Tucson, AZ
 Darnell “DJ” Alexander | Senior; Psychology, Kinesiology; New Orleans, LA
 Patti Busch | Senior; Psychology; Greensboro, NC
 Makailya Saman | Senior; Psychology; Spring Lake, NC
 Travis Cheek | Senior; Psychology; Gainesville, FL
 Joemer Dennis | Senior; Psychology; Monrovia, Liberia
 Carissa Shepard | Junior; Psychology; Wallace, NC
 Israel Cleveland | Sophomore; Psychology; Lake City, SC
 Advisor: Dr. Katharine Snyder, Psychology

The purpose of the present study is to assess the relationship between vocational development (career focus), psychological flourishing, and perceived stress among college students. Vocational development is defined as a sense of calling or transcendence toward one’s chosen career, as measured by the Calling and Vocation Questionnaire (CVQ; Dik et al., 2012). Psychological flourishing is defined as psychological well-being, assessed via the Flourishing Scale (Diener et al., 2009). Perceived stress is defined as levels of perceived helplessness, self-efficacy, and kindness, measured by the Revised Perceived Stress Scale (PSS-10; Taylor, 2015). Prior research has shown that a strong sense of vocation is linked to higher well-being and lower stress in college populations (e.g., Dik et al., 2012; Jackson-Nevels et al., 2024), yet few studies have examined these relationships using measures like the PSS-10, which includes kindness subscales, or the Flourishing Scale. Participants, recruited from undergraduate social science courses, will complete a survey packet including the CVQ, Flourishing Scale, PSS-10, and special interest demographic questions (e.g., campus organization involvement, burnout, loneliness, etc.). It is hypothesized that higher vocational development will be associated with higher psychological flourishing and lower perceived stress. Implications include extending CVQ research for career counseling interventions, with future studies exploring longitudinal effects on student retention.



AFTERNOON SESSION | CHAFFIN 103
INTERDISCIPLINARY: HEALTH, CARE, AND DISABILITY

————— Noon-12:20 p.m. —————

Improving Preventive Health Compliance: A Quality Improvement Project

Aryaben Patel | Senior; Biology; Fayetteville, NC
Advisor: Dr. Elizabeth Gignac, Academic Clinical Medicine

Preventive care is key to detecting diseases early and maintaining overall health, but many underserved patients fail to receive recommended health screenings. This project will review how the CARE Clinic, a non-profit free clinic in Fayetteville, NC, has taken steps to follow important U.S. Preventive Services Task Force (USPSTF) screening guidelines and identify gaps in care. By examining current screening rates and understanding barriers that prevent patients from receiving preventive services, we aim to develop practical strategies to improve screening compliance. Better preventive care delivery has been shown to reduce disease burden, improve long-term health outcomes, and address health disparities. This quality improvement project had three main goals: (1) identify key preventive

screenings that are relevant and available to CARE Clinic patients; (2) measure how well the clinic is following national screening guidelines; and (3) implement a preventive care tracking tool into the patient charts. Based on USPSTF recommendations, we selected 6 important preventive measures: mammograms for women aged 40-74; cervical cancer screening for women aged 21-65; colorectal cancer screening by age group; lung cancer screening for eligible adults aged 50-80; Type 2 diabetes screening for adults 35-70 who are overweight or obese; and tobacco cessation, age 18+. We reviewed 101 patient charts using the QuestionPro survey tool to collect information on each patient's age, sex, and whether they received recommended screenings. The findings revealed notable gaps in preventive care, particularly in cancer screening and tobacco cessation counseling, while diabetes screening showed strong adherence. These results highlight opportunities to strengthen clinic workflows, improve referral processes, and enhance patient education. This project supports the CARE Clinic's mission by strengthening preventive care and guiding future quality improvement efforts.

————— 12:20-12:40 p.m. —————

Communicating Disability: A Critical Disability Theory Analysis of *Atypical*

Alyssa Sharee Cervantes | Senior; Communication & Media; El Rito, NM
Advisor: Dr. Sonali Kudva; Communication & Media

This presentation explores how Critical Disability Theory (CDT) can be tied into communication, using the Netflix series *Atypical* as a main media artifact. The project argues that the way disability is represented in popular media directly shapes how people talk about, interpret, and interact with disabled individuals in everyday life. Through qualitative

analysis of key scenes and character interactions in the show, the study examines how communication patterns, such as family conversations, school interactions, and social misunderstandings, reflect broader cultural assumptions about autism and disability. The methodology combines CDT with media analysis to identify moments where the show both challenges and reinforces ableist ideas. Findings suggest that while *Atypical* increases visibility for autistic experiences, it also reveals common communication barriers and stereotypes that can encourage more inclusive communication practices and help audiences think critically about how disability is portrayed and discussed.



In the workforce, how does fetal substance exposure compared to a healthy workforce, when breastfeeding within the first month of life?

Background

- Fetal substance exposure (FSE) affects the health of the workforce
- Fetal substance exposure (FSE) affects the health of the workforce
- Fetal substance exposure (FSE) affects the health of the workforce

Methods

- Fetal substance exposure (FSE) affects the health of the workforce
- Fetal substance exposure (FSE) affects the health of the workforce
- Fetal substance exposure (FSE) affects the health of the workforce

Results

Conclusion

While further research is needed to fully understand the mechanisms of breastfeeding in infants exposed to fetal substance exposure (FSE), it can be shown that infants exposed to FSE in utero through maternal breast milk are at a higher risk of developmental delays.

2024 Fall Meeting Symposium



MIT

[Engage. Inspire. Empower.]

AFTERNOON SESSION | CLARK HALL (YARBOROUGH AUDITORIUM)
 INTERDISCIPLINARY: CULTURAL AND FINANCIAL TRANSITIONS

————— Noon-12:20 p.m. —————

Surviving Cultural Genocide: Resistance to Assimilation in Black and Indigenous American Culture

Jade Green | Sophomore; Psychology, English; Fayetteville, NC
 Advisor: Dr. Emily Leverett, English

Coming from a study of Death and Dying in literature, this collection brings together several examples of deliberate attempts to erase non-white cultures through assimilation. This project will highlight 4 specific examples where individuals were not only stripped of their non-white cultures but also forced to perform white culture as well. However, this project will also explore how these people and their culture resisted and survived. Examples include Jim Crow, Tom Torlino, Bison Skull Mountain, and *The Birth of a Nation*.

————— 12:20-12:40 p.m. —————

The Unsettled Account: Financial Closure and Social Order in Postwar South Carolina

Heba Mansaf | Senior; History, Political Science; Cary, NC
 Advisor: Dr. Patrick O'Neil, History

While the American Civil War concluded in 1865, the financial obligations of the antebellum era remained active, creating a persistent crisis of 'closure' across South Carolina. For while political sovereignty passed from military commanders to constitutional assemblies, the state faced a persistent accumulation of unclosed accounts: stay-laws protected secessionist debtors, while the Bank of the State collapsed into protracted litigation. Reconstruction governance is often framed as a battle for suffrage; but how is the authority to enforce a contract to be rebuilt when the property basis of society has been transformed? How

can a new state establish public credit when its ledgers remain haunted by the moral and financial debris of a collapsed slave economy? The following account represents an ongoing attempt to complicate and make sense of the mechanics through which institutions and individuals navigated this transition. By analyzing the 1868 Constitutional Convention debates, I examine how delegates sorted postwar obligations into categories: those deserving enforcement, those requiring delay, and those—specifically slave-purchase debts—whose moral basis had collapsed. This study integrates contracts, Freedmen's Bureau records, and market observations to map a 'network of obligation.' These sources reveal how Black laborers and white property holders remained tied to a chain of risk while contesting the terms of their cooperation, suggesting that establishing a new order required the deliberate abandonment of specific debts to empower a rising class of smallholders, making the work of closure a fundamental act of Reconstruction.



**B.F. STONE LYCEUM | APRIL 8
7 P.M., STOUT PA COMPLEX MEDICAL LECTURE HALL**

The mission of the B.F. Stone Lyceum is to foster scholarly interaction among faculty, students, staff, and community residents. The endowed lecture series began in 1998 with a generous gift from the estate of B.F. (“Doc”) Stone, a pharmacist from Elizabethtown, N.C. He was a respected and active member of the Methodist Church and a longtime supporter of Methodist University. The Lyceum, which consists of a lecture, two responses, and a question-and-answer period, takes place each spring and is free and open to the public.

The Missing Perspective in Psychology: The Image-Fall-Formation Model

PAST B.F. STONE LYCEUM PRESENTATION TITLES

Rx For Disaster: The Opioid Crisis, the Forgotten Patient, and the Search for the True Criminal” (2025)

“Who’s Gonna Carry the Boats?: Breaking Out of the ‘In Crowd’ in Service to Others” (2023)

“Our Diversity is Our Strength: Addressing Race and Gender in Higher Education” (2022)

“What’s an Ecological Society?: A Multi-disciplinary Conversation” (2020)



DR. BELINDA MCFERREN
Assistant Professor, Psychology



AN UPDATE FROM THE CENTER FOR RESEARCH & CREATIVITY

Co-Directors: Dr. Cameron Dodworth, Dr. Kathy Fick, Dr. Matthew Foreman



The annual Methodist University Center for Research and Creativity Symposium is the centerpiece of Symposium Week, with really cool student, faculty, and staff events taking place around campus all that week. As the organizing body of the annual B.F. Stone Lyceum, the CRC will continue to organize

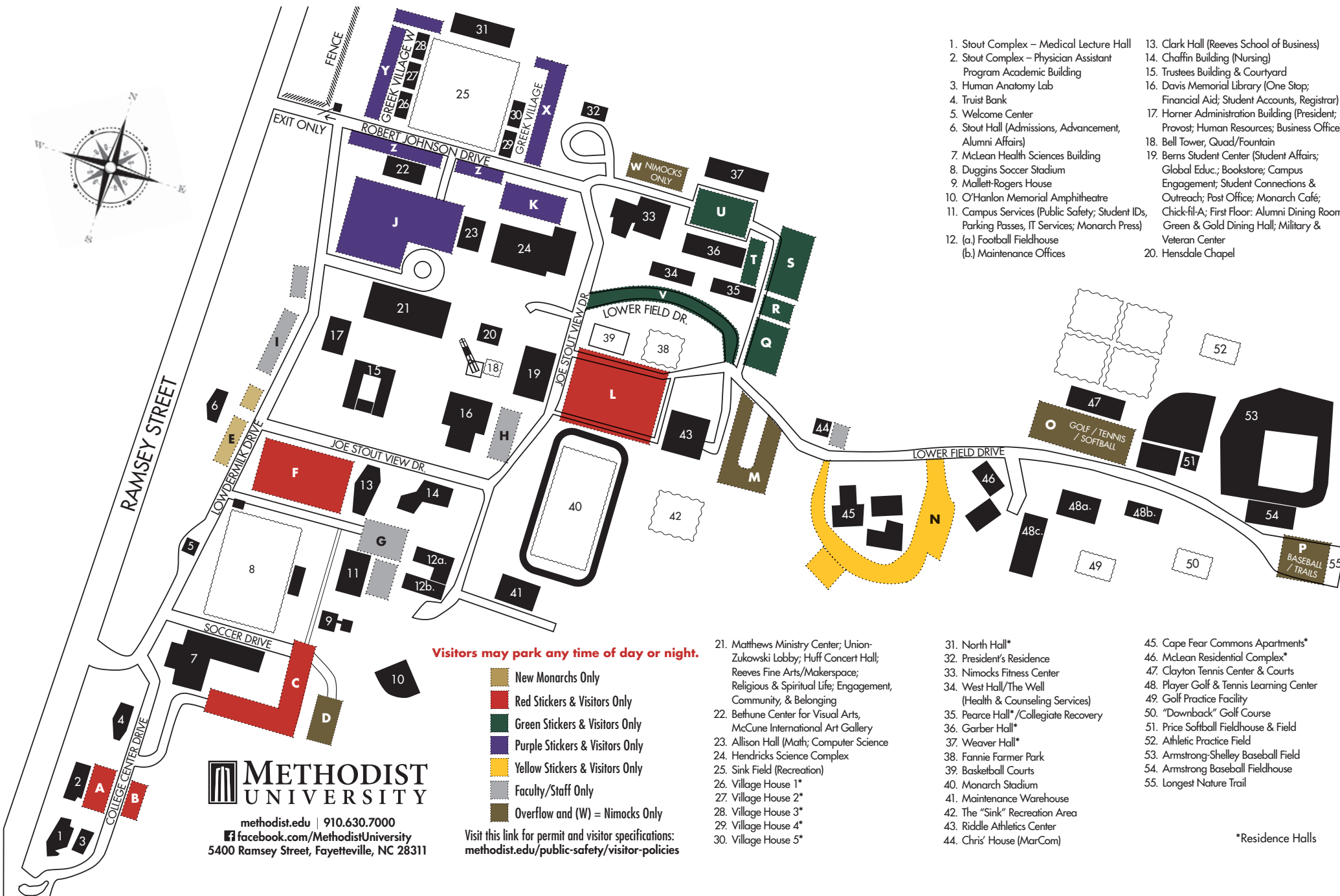
that event during Symposium Week. Furthermore, the CRC will continue its work supporting Methodist University's student journal for research and creativity, the *Monarch Review*, providing our MU students with a unique opportunity to publish their research and creative work in an online, interdisciplinary, multimedia, student-run journal. The CRC will also continue to sponsor and fund student research at MU, in the form of student grants for conference presentations and research materials.

The CRC Symposium has continued to grow each year, and the university continues to support that growth, even adding 2 faculty members to the CRC directorship. From the spring 2026 semester onward, the CRC will have 3 Co-Directors: Dr. Cameron Dodworth (Professor and Program Coordinator of English), Dr. Kathy Fick (Chair and Professor of Mathematics), and Dr. Matthew Foreman (Associate Professor of Occupational Therapy).

With even further growth in mind, the CRC would like to further encourage faculty, staff, and students to consider and produce more and more research-based and creative opportunities for our students. Collaborate with students on research and creative projects, encourage students to present those projects at academic conferences, encourage students to submit written or multimedia versions of those projects to the *Monarch Review* each year, and encourage—and perhaps even require—students to present their work each year at the CRC Symposium. Each student that creates a capstone project within their major is producing work that could potentially be published in the *Monarch Review*, if not at least be presented in-person and/or as a poster at the Symposium each spring. These are opportunities and projects that should go beyond receiving just a letter grade for a capstone course. The CRC—with its funding opportunities, the *Monarch Review*, and the spring Symposium—provides meaningful evidence of student work, beyond the classroom, in CVs and resumés, and that work can continue to be displayed online for students to showcase well after receiving their degrees from MU. All these students need is a member of faculty or staff to give them a little extra encouragement and motivation, and to also perhaps serve as a sponsor or advisor for a student's work. There are also 2 relatively new courses that can provide research opportunities for students to work with faculty: IDS 2990 Research Experience and IDS 4990 Advanced Research Experience. Thank you so much to all of you that have taken advantage of these opportunities discussed above, on behalf of our students, but further effort is still needed to provide our students with these valuable experiences and evidence of their success at MU—and potentially in their postgraduate careers.

The MU CRC would like to sincerely thank everyone that has worked very hard to make this year's 15th Annual Symposium possible, particularly La'Won Williams (Senior Graphic Designer), Karalee Scouten (Digital Media Coordinator), Michael Molter (Webmaster & Canvas Administrator), Eric Dowden (Monarch Press), and Brad Johnson (Director, Marketing & Communications).

methodist.edu | 910.630.7000 | 5400 Ramsey Street, Fayetteville, NC 28311
[facebook.com/MethodistUniversity](https://www.facebook.com/MethodistUniversity)



- 1. Stout Complex – Medical Lecture Hall
- 2. Stout Complex – Physician Assistant Program Academic Building
- 3. Human Anatomy Lab
- 4. Truist Bank
- 5. Welcome Center
- 6. Stout Hall (Admissions, Advancement, Alumni Affairs)
- 7. McLean Health Sciences Building
- 8. Duggins Soccer Stadium
- 9. Mallett-Rogers House
- 10. O’Hanlon Memorial Amphitheatre
- 11. Campus Services (Public Safety; Student IDs, Parking Passes, IT Services; Monarch Press)
- 12. (a) Football Fieldhouse
(b) Maintenance Offices
- 13. Clark Hall (Reeves School of Business)
- 14. Chaffin Building (Nursing)
- 15. Trustees Building & Courtyard
- 16. Davis Memorial Library (One Stop; Financial Aid; Student Accounts, Registrar)
- 17. Horner Administration Building (President; Provost; Human Resources; Business Office)
- 18. Bell Tower, Quad/Fountain
- 19. Berns Student Center (Student Affairs; Global Educ.; Bookstore; Campus Engagement; Student Connections & Outreach; Post Office; Monarch Café; Chick-fil-A; First Floor: Alumni Dining Room; Green & Gold Dining Hall; Military & Veteran Center)
- 20. Hensdale Chapel

Visitors may park any time of day or night.

- New Monarchs Only
- Red Stickers & Visitors Only
- Green Stickers & Visitors Only
- Purple Stickers & Visitors Only
- Yellow Stickers & Visitors Only
- Faculty/Staff Only
- Overflow and (W) = Nimocks Only

Visit this link for permit and visitor specifications:
methodist.edu/public-safety/visitor-policies

- 21. Matthews Ministry Center; Union-Zukowski Lobby; Huff Concert Hall; Reeves Fine Arts/Makerspace; Religious & Spiritual Life; Engagement, Community, & Belonging
- 22. Bethune Center for Visual Arts, McCune International Art Gallery
- 23. Allison Hall (Math; Computer Science)
- 24. Hendricks Science Complex
- 25. Sink Field (Recreation)
- 26. Village House 1*
- 27. Village House 2*
- 28. Village House 3*
- 29. Village House 4*
- 30. Village House 5*

- 31. North Hall*
- 32. President’s Residence
- 33. Nimocks Fitness Center
- 34. West Hall/The Well (Health & Counseling Services)
- 35. Pearce Hall*/Collegiate Recovery
- 36. Garber Hall*
- 37. Weaver Hall*
- 38. Fannie Farmer Park
- 39. Basketball Courts
- 40. Monarch Stadium
- 41. Maintenance Warehouse
- 42. The “Sink” Recreation Area
- 43. Riddle Athletics Center
- 44. Chris’ House (MarCom)

- 45. Cape Fear Commons Apartments*
- 46. McLean Residential Complex*
- 47. Clayton Tennis Center & Courts
- 48. Player Golf & Tennis Learning Center
- 49. Golf Practice Facility
- 50. “Downback” Golf Course
- 51. Price Softball Fieldhouse & Field
- 52. Athletic Practice Field
- 53. Armstrong-Shelley Baseball Field
- 54. Armstrong Baseball Fieldhouse
- 55. Longest Nature Trail

*Residence Halls

METHODIST UNIVERSITY
 methodist.edu | 910.630.7000
 facebook.com/MethodistUniversity
 5400 Ramsey Street, Fayetteville, NC 28311