



SCHOLAR SHOWCASE

UNIVERSITY OF SOUTH CAROLINA AIKEN

17 April 2026

Schedule of Events

Poster Sessions – Student Activity Center Gym

Poster Hanging - 9:00 am - 10:00 am

Session 1 - 10:00 am - 11:30 am

Poster Hanging - 1:00 pm - 2:00 pm

Session 2 – 2:00 pm – 3:30 pm

Humanities Oral Session – H&SS 103

Session 1 – 10:00 am – 11:30 am

Honors Symposium Session – H&SS 103

Session 1 - 3:00 pm – 4:00 pm

Humanities Oral Session – H&SS 103

Session 1 – 10:00 am – 11:30 am

10:00-10:15 The Vampire Novel: How Vampires Became Monsters

Andrew Pencille

mentored by Dr. Eric Carlson

10:15-10:30 Tales of Two Bodies: Orlando and The Danish Girl

Kirstie McElmurray

mentored by Dr. Julie Wise

10:45-11:00 "A Metaphor Cannot be Paraphrased": Parallels Between Monk and Go Through the Lens of Black Tropes

Aaron Stone

mentored by Dr. Todd Hagstette

11:00-11:15 The Postmodern Labyrinth: House of Leaves and Internet Horror

Ben Weeks

mentored by Dr. Amanda Warren-Seeger

11:15-11:30 The Brutality of Sugar: Power, Pain, and Poverty in the Sugarcane Industry of India

Hayle Sharpe

mentored by Dr. Christine Wernet

Honors Symposium Session – H&SS 103

Session 1 – 3:00 pm – 4:00 pm

3:00-3:15 Boom or Bust? Comparing Nesting Success in Eastern Bluebirds at Two Aiken Locations Across the Years

Emory Owens

mentored by Dr. Michelle Vieyra

3:15-3:30 Syntheses and Analyses of Metal-Organic Frameworks for Separation of Water Isotopologues

Emily Walker

mentored by Dr. Gerard Rowe

3:30-3:45 The Need to Please: People-Pleasing Tendencies in Prelicensure Nursing Students

Alexa Carnahan

mentored by Dr. Mary Gaffney

3:45-4:00 Determining the role of *tbx5a* and *tbx5b* in development of zebrafish

James Saxon

mentored by Dr. April DeLaurier

Morning Poster Sessions – Student Activity Center Gym

Poster 1 - The Gregg Diaries

Laurie Collins, Addisen Alvanos and Caroline Wright
mentored by Dr. Todd Hagstette

Poster 2 - Vietnam Veterans Oral History Project: Process, Results, and Significance

Palmer McCay
mentored by Dr. Sarah King

Poster 3 - Pain and Poverty: An analysis of violent crime in economic recessions

Logan Blume
mentored by Dr. Andrew Dryer

Poster 4 - Cognitive Status and Difficulty with Activities of Daily Living among Adults Aged 50 and Older

Jeasmine Nyelle Elizabeth Blyther
mentored by Dr. Delaram Sirizi

Poster 5 - Observable differences in physiological markers of respiratory vagal nerve stimulation in deep breathing mindfulness training.

Allaina Rayne Szilveszter, Lansley Macgargle, Malia Patten and Stephen Caleb Byrd
mentored by Dr. Alexandra Roach

Poster 6 - Pornography Consumption Modulates False-Consensus Effect

Sanja Becnel, Maddisson Stone
mentored by Dr. Adam Pazda

Poster 7 - Incarcerated Parents

Victoria Adsit, Chelsea McCants and Amaiyah Smith
mentored by Dr. Judith Collazo

Poster 8 - Post-Traumatic Stress Disorder (PTSD)

Kennedy B Melton
mentored by Dr. Melissa Martin

Poster 9 - Removal of Recess for Targeted Populations

Olivia O'Shields
mentored by Dr. Judith Collazo

Poster 10 - Supporting Students with Schizophrenia in the College Setting

Kendall Risher
mentored by Dr. Melissa Martin

Poster 11 - Contextual Factors Project

Makariya Rouse and Olivia O'Shields
mentored by Dr. Judith Collazo

Poster 12 - Menstruation in Women's Basketball

Destiny R Harman

mentored by Dr. Andrew Hatchett

Poster 13 - An Evaluation and Comparison of Generic and Performance Designed Athletic Apparel

Ian N McKinney

mentored by Dr. Andrew Hatchett

Poster 14 - Upper and Lower Extremity Power Effects on Countermovement Jump With and Without Arm Swing

Savanna Spires

mentored by Dr. Andrew Hatchett

Poster 15 - Synthesis and Deuteration of DHA

Benjamin J Ferrick

mentored by Dr. Kenneth Roberts

Poster 16 - HDAC4 and bone ossification

Sophia Nwanneka Afamefuna

mentored by Dr. April DeLaurier

Poster 17 - Overcoming Ribosomal Stalling in a Plant Transgene

Prisha Bhavsar

mentored by Dr. C. Nathan Hancock

Poster 18 - Designing and testing *dTgm9*-based activation tags for *Glycine max*

Brenden Bogar

mentored by Dr. C. Nathan Hancock

Poster 19 - How does size affect *Suppressor-mutator (Spm)* transposition frequency?

Jennifer Gonzalez

mentored by Dr. C. Nathan Hancock

Poster 20 - A Tale of Two Counties: Mortality trends of infants in Aiken and Charleston (1920 vs 1950)

Alexis Gray

mentored by Dr. Andrew Dyer

Poster 21 - Identification of desmocollin (*dsc*) mutant zebrafish

Adam P Langworthy

mentored by Dr. April DeLaurier

Poster 22 - The Muscular Organ Necessary to Live: Cardiac Related Deaths in Men and Women in Charleston in 1960 and 1972

Samantha Morse

mentored by Dr. Andrew Dyer

Poster 23 - Till death do us part: Does marital statuses change quality of health care?

Anadalay Rojas

mentored by Dr. Andrew Dyer

Poster 24 - Cloning pro-apoptotic Bax gene into the inducible pLX(2I)R.pA plasmid

Leana Clark

mentored by Dr. William Jackson

Poster 25 - Optimizing buffer conditions for single turnover assays of the 2,4'-dihydroxyacetophenone dioxygenase (DAD) reaction.

Kaydee Croom

mentored by Dr. Ken Roberts

Poster 26 - Born into Inequality: Racial Disparities and Infant Mortality in the 20th Century in South Carolina.

Sahra Elysabeth Ditto-Williams

mentored by Dr. Andy Dyer

Poster 27 - Medical Indifference: Hospital Death Documentation in 1950 vs 1970

Gina Marie Stone

mentored by Dr. Andrew Dyer

Poster 28 - Cotton to Chrome: The Atomic Age and Industrial Inequality in Williston, SC (1915-1972)

Katharina J Behrens

mentored by Dr. Andrew Dyer

Poster 29 - The Turning Point: Age, Mortality and Infectious Disease in Aiken County

Amya K Bush

mentored by Dr. Andrew Dyer

Poster 30 - Unequal Burdens of Death

Paola Estrada Lopez

mentored by Dr. Andrew Dyer

Poster 31 - Death Comes in Fours: Comparing the age of death of four major groups of working adults from Aiken SC in 1917

Johnathan Conner Gladden

mentored by Dr. Andrew Dyer

Poster 32 - 2026 USC Aiken Bluebird Trail Update

Alyssa Godfre and Sofia Romero

mentored by Dr. Michelle Vierya

Poster 33 - The importance of temperature control in Eastern Bluebird nestboxes
Quinn Schreiber and Shiloh Tew
mentored by Dr. Michelle Vierya

Poster 34 - Better Luck Next Lifetime: A Comparison of Life Expectancy in Aiken County (1915 vs.1960)
Ayana Bell
mentored by Dr. Andrew Dyer

Poster 35 - The Cost of Labor: Cardiovascular deaths and occupations
Anna Caroline Corley
mentored by Dr. Andrew Dyer

Poster 36 - Racial Discrepancy: Antibiotic Treatment and Pneumonia Among Black and White Patients, Aiken 1940-1950
Blake R Logue
mentored by Dr. Andrew Dyer

Poster 37 - Bluetooth Low Energy Communication Security in Wearable IoT Devices: A Fitbit Sense 2 Case Study
Andrew Bishop and Adriel Sosa
mentored by Dr. Hala Strohmier

Poster 38 - Do These Petals Make a Loop? A Topological Approach to Flower Form
Sam Burns
mentored by Dr. Mohammad Hailat

Poster 39 - Zenbleed: Digital Noise Synthesis
Jacob Evans, Nicholas Owens and Denton Spivey
mentored by Dr. Yilian Zhang

Poster 40 - Predicting Exoplanetary Habitability: A Balanced Machine Learning Approach to Recent Climatology Metrics
Breana N Ginn, John K Clegg
mentored by Dr. Yilian Zhang

Poster 41 - PacerBot: University RAG AI Powered Chatbot
Justin Glover, Andrew McCord and Katerina Yeung
mentored by Dr. Yilian Zhang

Poster 42 - Tower of Trials - PWA Game
Edgar Gonzalez, Delvin Berry and Justin Coleman
mentored by Dr. Yilian Zhang

Poster 43 - AGY Frame Installation & Compressor Evaluation
Gage R McCullough, Alejandro Espinosa, Elijah Hall, William Hamilton and Paige Andrews
mentored by Dr. Bethany Fralick

Poster 44 - Nuclear Waste Tank Collaboration

Luke Nagy, Carson Alexander McCaslin, Austin Lee Reynolds and Jacob Phillips
mentored by Dr. Bethany Fralick

Poster 45 - Integrating Blockchain Technology into RFID Middleware for Intrusion Detection

Kaeden D Nomm, Zane Yongue and Sean Soda
mentored by Dr. Hala Strohmier

Poster 46 - Savannah River Site F-Area and H-Area Tank Farm Waste Depth Sampling Probe

William Parrott and Luciano Castro
mentored by Dr. Bethany Fralick

Poster 47 - Burn Characteristics of Fire-Treated Wood for SRNS Construction Applications

Samuel Peatman, Ian Chisholm, Britney Yarnell and Lane Maciejewski
mentored by Dr. Bethany Fralick

Poster 48 - Bridgestone capstone 2026

Benjamin Randolph, Daniel Shumpert, Frank Whiteside and Nicholas Avant
mentored by Dr. Bethany Fralick

Poster 49 - Shipmate - Package Tracking

Alex Yongue, Judah D Owen and Brandon Malcom
mentored by Dr. Yilian Zhang

Poster 50 - Mitigation of Light Pollution Affecting the Ruth Patrick Science Center Telescope Through Drone-Based Mapping and Shielding Development

Caleb Durden, Aidan Clayton, Olivia Ellis and Frederik Boucher
mentored by Dr. Neil Miller

Poster 51 - Tamper Detection in CT DICOM Images for Digital Forensics and Clinical Integrity using Deep Learning

Sydney Halupa, Jessica Brown and William Carroll
mentored by Dr. Hala Strohmier

Afternoon Poster Sessions – Student Activity Center Gym

Poster 1 - The Battle of Shiroyama - Imperial Reform, Samurai, and the Satsuma Rebellion

Jack Shaffer

mentored by Dr. Heather Peterson

Poster 2 - The Persecution of Afro-Germans from the Weimar to the Start of Nazi Germany

Spencer Alexander Weaver

mentored by Dr. Samuel Pierce

Poster 3 - Tempest of Canaan: The Fall of Ugarit & Israel's Northern Kingdom

Caroline R Wright

mentored by Prof. Natalia Bowdoin

Poster 4 - The Graniteville Manufacturing Company's Textile Worker's Strike of October 1933

Caroline R Wright

mentored by Dr. William Westermeyer

Poster 5 - Bilingualism and Identity

Breanna Shults

mentored by Dr. Melencia Johnson

Poster 6 - Supporting K-12 Students with ADHD in the Classroom

Tirzah A Slagle

mentored by Dr. Melissa Martin

Poster 7 - Equity Issue Project on (Incarcerated Parents)

Amaiya Smith, Chelsea McCants and Victoria Adsit

mentored by Dr. Judith Collazo

Poster 8 - The Call Me MiSTER Balancing Act: Advocating for Ourselves, Each Other, and the Profession

MyAsia Smoke and Antwone Williams

mentored by Dr. Deborah McMurtrie

Poster 9 - The Effects of Parental Death on Adolescent Development

Lauren Bell

mentored by Dr. Deborah McMurtrie

Poster 10 - T-CHEER: Teaching with Content Knowledge, Humor, Empathy, Engagement, and Relevance

Zach Evans

mentored by Dr. Michelle Rasheed

Poster 11 - Building Literacy in the Math Classroom

Jessica Lawson

mentored by Dr. Michelle Rasheed

Poster 12 - Contextual Factors and Their Impact on Teaching and Learning

Olivia O'Shields and Makariya Rouse

mentored by Dr. Judith Collazo

Poster 13 - Characteristics of depression in K-12 Students.

Alli Sheffield

mentored by Dr. Melissa Martin

Poster 14 - Embracing LIFE: Examining the Attitudes of Engaging with Individuals with Disabilities at a Comprehensive Institution to Promote Learning is For Everyone (LIFE)

Skylar Shirey

mentored by Dr. Melissa Martin

Poster 15 - Closing Learning Gaps

Kyra Shuler

mentored by Dr. Bridget Coleman

Poster 16 - Effectiveness of Introducing Differentiated Small -Group Instruction

Tamika Smith

mentored by Dr. Bridget Coleman and Dr. Judy Beck

Poster 17 - Is Tobacco Free Really Tobacco Free?

Austin Powell

mentored by Dr. Mary Rogers

Poster 18 - Pedal to the Metal

Tyler Lei-Ann Robbins and Hayley Stack

mentored by Dr. Laura Swain

Poster 19 - Educational values predict somatic symptoms and perceived stress for White American college students, but not for American students of color

August Beltran and Rebekah Orton

mentored by Dr. Mary Moussa Rogers

Poster 20 - Differential Effects of Brief Mobility Protocol on Jump and Hop Performance

Charlton Judson Pickett

mentored by Dr. Andrew Hatchett

Poster 21 - Improving Postpartum Follow-Up and Infant Health Outcomes Through RN-Led Home Visits

Cara Alan, Yazmine Simmons, Alexandra E Bishop and Kayte Caroline Wimberly

mentored by Dr. Pastelle Walston

Poster 22 - RN Led Mobile Health Clinics and Access to Care in Rural Areas and Health Outcomes

McKenzie Beard, Ansley Kitchings, Emmalie Mahan and Joceline Madison
mentored by Dr. Pastelle Walston

Poster 23 - RN-led Hygiene education and its impact on reducing infectious disease outbreaks in schools

Lily Hannah Boswell, Bailey Drawdy, Brooke Owens and Hailie Cliett
mentored by Dr. Pastelle Walston

Poster 24 - Activities of Daily Living Relationship with Quality of Life in Adults

Benjamin Bowers
mentored by Dr. Andrew Hatchett

Poster 25 - RN-Led Simulation-Based Learning and its Effects on Clinical Reasoning

Kasey Corbett, Miranda Mills, Elisabeth Pretorius and Gabreille Gray
mentored by Dr. Pastelle Walston

Poster 26 - QI Poster

Kendell V Golston, Peyton B Owenby, Tyleigh M Spiller and Jennie Melville
mentored by Dr. Pastelle Walston

Poster 27 - Impact of Hand Hygiene Compliance on HAI Reduction

Kayleigh N Gummo, Perla Huerta-Hernandez, Viviana S Medina Roman and McKintley G Morgan
mentored by Dr. Pastelle Walston

Poster 28 - Reducing Nurse Burnout Through Stress-Reducing Interventions

Olivia Holley, Taylor L Griner, Morgan K McDermott and Brandi Barlow
mentored by Dr. Pastelle Walston

Poster 29 - Reducing Emergency Department Wait Times Through RN-led Fast Track Triage

Reagan Littleton, Karlee Kolb, Hannah Teague, and Andrew Troufler
mentored by Dr. Pastelle Walston

Poster 30 - Using RN Led Education to Manage Chronic Illnesses

Zi'Yier F Rice, Kennedy J Brown, Fredericka Imani Trottie and Josselyn Borbonio
mentored by Dr. Pastelle Walston

Poster 31 - The "Bright Side" of Renal Failure: Comparing Renal Disease in Black Women and White Women in 1920 vs. 1960 in Charleston County, SC

Vivica Birt
mentored by Dr. Andy Dyer

Poster 32 - The Effect of Caffeine on Performance in Habitual and Non-habitual Participants

Anna Clare Sommer and Cam Greene
mentored by Dr. Andrew Hatchett

Poster 33 - The Trophic Stage of Egg Development in Livestock Pests

Isabella Cardenas
mentored by Dr. Mary Mills

Poster 34 - Altering the terminal inverted repeat sequences of the soybean *CACTA* transposable element *dTgm9* inhibits its transposition

Gabrielle Peak
mentored by Dr. C. Nathan Hancock

Poster 35 - A Vaccine's Impact: Tuberculosis Vaccine's Effect and Male Longevity in Aiken, SC

Treshon Rawlins
mentored by Dr. Andrew Dyer

Poster 36 - A closer look into egg development within *Culicoides sonorensis* midges

Lucero Rodriguez
mentored by Dr. Mary Mills

Poster 37 - Regulation of egg development in the livestock pest, *Culicoides sonorensis*

Madelyn Smith
mentored by Dr. Mary Mills

Poster 38 - PCMV Puma into the PLX(2I)R.PA

Maria Guadalupe Andraca-Hernández
mentored by Dr. William Jackson

Poster 39 - Using HIV-1 inhibitory elements in an inducible plasmid system to regulate gene expression

Marissa Brooks
mentored by Dr. William Jackson

Poster 40 - Genetic Analysis of the Dwarf Soybean Mutant

James Burns
mentored by Dr. C. Nathan Hancock

Poster 41 - Genetic Determinants of Soybean Flower Attractiveness

Isabella Gesmondi
mentored by Dr. C. Nathan Hancock

Poster 42 - Characterizing HIV-dependent expression of pro-apoptotic BimL in HEK293T cells

Gracie Goss

mentored by Dr. William Jackson

Poster 43 - Developing *mPing*-based Constructs for Transposase Assisted Target Site Integration

Madison L Hamlin

mentored by Dr. C. Nathan Hancock

Poster 44 - Investigating the roles of *rcor1* and *rcor2* in zebrafish development

Samantha K Owen

mentored by Dr. April DeLaurier

Poster 45 - Cognitive Status and Functional Limitations Among Older Adults: Evidence from the Health and Retirement Study

Tiffani Rowe

mentored by Dr. Delaram Sirizi

Poster 46 - Unequal Care in a Time of Cure: Racial Inequality in Pneumonia Deaths in Charleston from 1925 to 1946

Raymond Luvite Moton

mentored by Dr. Andrew Dyer

Poster 47 - Assembly and Comparative Analysis of *Sabal palmetto* Genomes Linked to an Herbarium Specimen

Sam Burns

mentored by Dr. Nathan Hancock

Poster 48 - A Low-Cost MQTT-Based Cyber-Physical Smart Grid Testbed for Multi-Attack Detection

Anthony Sambrano, Vidhikala Nainani and Chad Heath

mentored by Dr. Hala Strohmier

Poster 49 - DWPF Motor Jig Capstone Project

William Thomas, Zackary Rhoden and Nicholas Parker

mentored by Dr. Bethany Fralick

Poster 50 - Detection of Tampering in Medical X-Ray Images Using Residual Networks

Lucy Marie-Antoinette Tyrteos, Jafar Omar Abdalla and Bhumika Patel

mentored by Dr. Hala Strohmier Berry

Poster 51 - An Algorithm for the Constrained Longest Common Subsequence and Substring Problem for Multiple Strings

Richy Appa Modugu and Brandon Weathers

mentored by Dr. Rao Li

Poster 52 - Mitigating Last-Revealer Attacks in PoS Blockchains

David Cavale, Soham Khot and Adiba Hussain

mentored by Dr. Hala Strohmer

Scholar Showcase Organizing Committee:

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Dr. C. Nathan Hancock
Dr. Michele Harmon
Dr. Matthew Miller
Dr. Michelle Vieyra
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