



STATE OF NORTH CAROLINA UNDERGRADUATE RESEARCH AND CREATIVITY SYMPOSIUM



November 11, 2023

9:00 AM- 4:45 PM

Wingate University

South Piedmont Community College

OVERVIEW

8:00 AM- 9:00 AM	Registration & Continental Breakfast
9:00 AM- 9:15 AM	Welcome Session with Dr. Rhett Brown, President of Wingate University
9:30 AM- 10:30 AM	Oral Presentation Session #1
10:00 AM- 11:30 AM	Poster Presentation Session #1
10:45 AM- 11:45 AM	Oral Presentation Session #2
11:30 AM- 1:30 PM	Lunch Service
12:30 PM- 1:30 PM	Oral Presentation Session #3
12:30 PM- 2:00 PM	Poster Presentation Session #2
1:45 PM- 2:45 PM	Oral Presentation Session #4
2:30 PM- 4:00 PM	Poster Presentation Session #3
3:00 PM- 4:00 PM	Oral Presentation Session #5
4:30 PM- 4:45 PM	Closing Session with Dr. Terese J. Lund, Director of Undergraduate Research at Wingate University

Oral Presentation Sessions @ 9:30 AM
Wingate University Campus (Various Locations)

Room	Presenter	Institution	Title	Mentor(s)	Discipline
Hayes 202	Tanush Sriram	North Carolina School of Science and Mathematics, Durham	Impact of Violent Media on Child Psychological Arousal		Psychology
Hayes 202	Amy Lei	North Carolina School of Science and Math	Implementation of Youth Action and Resources to Address Mental Health Barriers in Schools	Dr. Amy Sheck	Psychology
Hayes 202	Rebecca Roope	Campbell University	Preparing K-12 Teachers for Crisis: Rural Educators Responses to COVID-19	Dr. Laura Lunsford	Psychology

Room	Presenter	Institution	Title	Mentor(s)	Discipline
Hayes 203	Christina Zhao	NCSSM	Rational Design and Synthesis of a PHD2 Inhibitor for Oral Treatment of Chronic Kidney Disease-Induced Anemia	Dr. Tim Anglin	Chemistry
Hayes 203	Thrista Venkat	NCSSM	What causes emotions to affect investment behavior?	Andrew Morningstar	Behavioral Economics
Hayes 203	Siddharth Maruvada	NCSSM	Examining the Marginalization Among Children with Disabilities from Low Income Backgrounds in Developing Nations	Dr. David Cantrell	Humanities

Room	Presenter	Institution	Title	Mentor(s)	Discipline
Hayes 208	Dishita Agarwal	NCSSM	Transforming Healthcare Dynamics: Investigating Strategies for Integrating Cultural Humility into Medical Practice	Victoria Parente	Public Health
Hayes 208	Jaqueline Hernandez Ramos	Wingate University	U.S. Immigrants' Strategies in Navigating Healthcare Barriers	Dr. Katie Knop	Public Health
Hayes 208	Dhairya Desai	The University of North Carolina at Charlotte	Exploring the Impact of Demographics on Asthma Patient Visits for COACH McLungs Implementation	Dr. Tom Ludden	Public Health

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Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Cornwell EKS	Dhanya Balasubramanian	NCSSM	Gendering Musical Instruments: Exploring Origins, Evolution, and Impact Through a Cross-Cultural Lens	David Cantrell	Humanities
Cornwell EKS	Elizabeth Chavis	University of North Carolina at Pembroke	Perceptions of Risk Factors for Child Maltreatment and Social Service Utilization in Robeson County	Dr. Corey Rae Pomykacz	Sociology and Criminal Justice

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
AV EKS	Maggie Josling	Elon University	Predicting the effect of gene fusions on Acute Megakaryoblastic Leukemia	Andrea Perreault	Biology
AV EKS	Onur Tercioglu	NCSSM	Facile Procedure of Cost Effective Bi doped SnO ₂ Catalysts for the CO ₂ Electroreduction Reaction	Dr. Tim Anglin	Chemistry

Oral Presentation Sessions @ 9:30 AM
 Wingate University Campus (Various Locations)

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Recital Hall	Saumya Gangwal	North Carolina State University	Data Goggles: A Research and Development Tool	Dr. Smitha Krishna	Statistics
Recital Hall	Alexander Torragar & Annie Stankovic	Wingate University	A Short Survey of Scottish Gaelic Song	Dr. Jordan Wilson	Music

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Batte 204	Abhinav Meduri	NCSSM	Improving Lead Sequestration and Power Conversion Efficiency in Organic-Inorganic Lead Halide Perovskite Solar Cells through Alginate-L-Cysteine Biopolymer Encapsulation	Dr. Michael Bruno	Chemistry
Batte 204	Stephanie Stewart	East Carolina Univeristy	Fertilization and information theory: a stochastic model of sperm cell population dynamics	Cameron Schmidt, PhD	Biology
Batte 204	Kiara Smith	Fayetteville State University	The Impact of Toxoplasma gondii Infection on Estrogen Receptors Alpha and Beta in an In vitro Model of the Prostate Microenvironment	Dr. Travis Jerde; Emily Stanczak	Pharmacology

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
CWC	Olivia Avery	Elon University	Design and Synthesis of a CLIPTAC Molecule for the Treatment of Alzheimer's Disease by Tau Degradation through the Ubiquitin-Proteasome System	Michael Bruno, Tim Anglin	Chemistry
CWC	Vikas Sarvasya	NCSSM	3D Recurrent R-CNN for Medical Imaging Feature Detection	Dr. Liam Butler, Mr. Robert Gotwals	Math
CWC	Sam Mell & Elaine Shi	NCSSM	Nim	Dr. Samantha Moore	Math

Oral Presentation Sessions @ 10:45 AM
Wingate University Campus (Various Locations)

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Hayes 202	Vaeda McGarr	University of North Carolina at Greensboro	Social words predict social problems: Connecting idiographic measures of self discrepancy and interpersonal problems	Kari Eddington, P.hD	Psychology
Hayes 202	Elizabeth Branch	Wingate University	Development of the Multidimensional Belief in Astrology Scale (BIAS): Machine Learning and Nomological Network Analyses	Dr. Christopher Breeden	Psychology
Hayes 202	Salia Maas-York, Kennedy Davenport	Wingate University	The Relationship Between Neuroticism and Dissociative Identity Disorder Traits In Individuals Who Have Experienced Trauma	Melina Sneesby	Psychology

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Hayes 203	Ella Laws	NCSSM	American Football in the South: How, Why, and What Next?	Dr. David Cantrell	History
Hayes 203	Jaylon Baird	Wingate University	Football in Film	Dr. Daina Nathaniel	Comunication
Hayes 203	Lizzie Suazo	Wingate University	Print Media Vs Digital media	Dr. Daina Nathaniel	Comunication

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Hayes 208	Ethan Divon	University of North Carolina Greensboro	Expanding Classics: Comparative World Mythology and its Reception in Gaming	Aisha Dad	Classical Studies
Hayes 208	Mikayla Hamilton	Lees-McRae College	"Breaking Into Your Heart Like That": America's "Butter"-Soft Heart for International Music	KC Clemens	Humanities
Hayes 208	Chanelle A. Bergeron	Meredith College	Shades of Greater Subtlety: An Experiment in Exploratory Prose	Ashley Hogan	Creative Writing

Oral Presentation Sessions @ 10:45 AM
Wingate University Campus (Various Locations)

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Hayes 209	Brianna Barbee	Elizabeth City State University	Conceptual design internship at the airworthiness sustainment branch of the Coast Guard	Akbar Eslami and Gray Harrison	Engineering
Hayes 209	Indu Gadiraju	University of North Carolina Wilmington	Designing a Low-Cost Sensor to Identify Bathymetric Features for Automated Rip Current Detection	Philip Bresnahan	Engineering
Hayes 209	Kaliah Moore	North Carolina A&T State University	Li-Dar 3D Scanning	Yuhan Jiang	Engineering / Civil Engineering

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Cornwell EKS	Linda Xue	NCSSM	Social Isolation on Behavior and Physiology In the Model <i>Gromphadorhina Portentosa</i>	Kimberly Monahan	Biology
Cornwell EKS	Krish Dandu	Summer Ventures in Science and Math Program	A Novel Gene Therapy for Alzheimer's Disease	Dr. Ying Wang, Jessica Croson	Biology
Cornwell EKS	Siddharth Maruvada	NCSSM	Design and Synthesis of Novel Small Molecule Interleukin-6 Inhibitors for the Amelioration of Inflammatory Bowel Disease Using Model Organism <i>Drosophila Melanogaster</i>	Dr. Michael Bruno	Chemistry

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
AV EKS	Hiba Hassib	NCSSM	Ore Knob Mine Superfund Restoration Efforts: Assessment of Biological and Chemical Recovery from Acid Mine Drainage	Dr. Shea Tuberty	Biology
AV EKS	Caroline Klein	Meredith College	An Exploration Into the Rates of Decomposition of House Mice (<i>Mus musculus</i>) using two different species of Beetles (<i>Dermestes maculatus</i> and <i>Tenebrio obscurus</i>)	Dr. Megan Serr	Biology
AV EKS	Lily Wellener	NCSSM	All That Glitters is Not Gold: The Impact of the 1828 Gold Rush on Brindletown, NC	Dr. Luke Manget	Environmental History

Oral Presentation Sessions @ 10:45 AM
Wingate University Campus (Various Locations)

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Recital Hall	Lara Dincer	NCSSM	Utilizing Naegleria gruberi as a novel model organism for exploring Ten Eleven Translocation Enzyme Stability and Function	Mrs. Jennifer Williams	Biology
Recital Hall	Elaine Shi	NCSSM	Nim	Samantha Moore	Math
Recital Hall	Saron Zerai	Appalachian State University	Sleep Architecture and Nocturnal Blood Pressure in Spouses of First Responders	Jared Skinner	Human Physiology

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Batte 204	Abhinav Gurram	NCSSM	ARAID: A Novel Real-Time Augmented Reality and Artificial Intelligence Driven Navigation System & Pipeline for Cardiovascular Surgery	Bala Gurram	Biology
Batte 204	Katie Messick	High Point University	Beauty Beyond Boundaries: Empowering Inclusivity through AI and Beauty	Brianna Clark	Event Management

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
CWC	Sharon Gorden	NC A&T	What Modern Day Hair Companies Learn from Black Hair Care Entrepreneurs: A Historical Marketing Analysis		Business
CWC	Arnav Garg	NCSSM	Treating Anorexia Nervosa Using Fluoxetine and Olanzapine in the Model Organism Caenorhabditis elegans	Heather Mallory	Biology
CWC	Sydney Burkhart	NCSSM	An Evasion of Environmental Liability	David Cantrell	Public Health

Oral Presentation Sessions @ 12:30 PM
Wingate University Campus (Various Locations)

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Hayes 202	Ethan Muckerheide	High Point University	Making you think: Investigating the effectiveness of multiple rumination inductions.	Dr. Laura Nagy	Psychology
Hayes 202	Aurora L Rose	Warren Wilson College	Revisiting double empathy: an exploration of social preference in autistic and non-autistic individuals	Martha Knight-Oakley	Psychology
Hayes 202	Heaven Thornton	Greensboro College	A Secure Relationship with God: Client-Therapist Relationships as a Model for Individuals' Relationships with God	Dr. Henry Kuo	Psychology, Religion

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Hayes 203	Molly Zolotor	University of North Carolina at Chapel Hill	Climate Induced Shifts in Tropical Fish Species in The South Atlantic Bight	Camryn Blawas	Environmental Science
Hayes 203	Aedan Simons-Rudolph	Appalachian State University	The Modeling and 3D-Printing of Protective Cases for Beemon: An Affordable Bee Monitoring System	Chris Campell	Computer Science
Hayes 203	Avery Williams	Meredith College	The Visual Traditions of Serpents and Dragons in Alchemy	Shannon Grimes	History

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Hayes 208	Temitayo Olofintuyi	Appalachian State University	Estimating the Number of Drones at the Entrance of a Honey Bee Hive using Machine Learning Tools	Rahman Tashakkori	Computer Science
Hayes 208	Bryce Gerdeman	Appalachian State University	AppMAIS Project Webpage	Dr. Abdelbaset Hamza	Computer Science
Hayes 208	Hozaifa Owaisi	University Of North Carolina at Pembroke	Deep Learning Application to Identify thrombogenesis	Joong-Lyul Lee	Public Health

Oral Presentation Sessions @ 12:30 PM

Wingate University Campus (Various Locations)

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Hayes 209	Jessica Jacob	University of North Carolina at Greensboro	Seasonal Foraging Strategies: The Foraging Response of Captive Coquerel's Sifakas When Food Availability Changes	Dr. Charles P. Egeland, Dr. Lydia K. Greene	Biology
Hayes 209	Khushi Bhatt	NCSSM and Duke University	Investigating the role of the core basement membrane component laminin in mechanically active tissues	Dr. Adam Soh	Biology
Hayes 209	Jessica Jacob	University of North Carolina at Pembroke	Deep Learning Application to Identify Thrombogenesis	Haitao Zhao	Public Health

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Cornwell EKS	Lizyulelba Rubi Lopez Juarez	Wingate University	A novel N-terminal Nuclear Localization Sequence directs the nuclear translocation of Satb2	Brett Schofield	Biology
Cornwell EKS	Hari Manchi	NCSSM	Chemical recycling of Poly(lactic acid) into lactide using a 1,1,3,3-tetramethylguanidinium zinc chloride catalyst	Dr. Tim Anglin	Chemistry
Cornwell EKS	Mairead C. Meaney	Summer Ventures in Science and Math Program	Effects of Frequency on the Auditory Masking Threshold	Dr. Mark Sprague and Dr. John Kenney	Physics

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
AV EKS	Rachel Joel	NCSSM	Studying Endophytes as a Mode of Horizontal Transfer of Pyrrolizidine Alkaloids Between Plants	Mrs. Jennifer Williams	Biology
AV EKS	Christian McFadyen	NCSSM	Design, Facile Synthesis, and Evaluation of a Chalcone-Based Small Molecule ULK1 Agonist for the Treatment of Huntington's Disease	Michael Bruno	Chemistry
AV EKS	May Ming	NCSSM	Lead-free Perovskites	Michael Falvo	Physics

Oral Presentation Sessions @ 12:30 PM
Wingate University Campus (Various Locations)

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Recital Hall	Suchetana Kona	NCSSM	The Effects of Maternal and Paternal Sleep Deprivation on T3 and T4 Thyroid Hormones in Zebrafish Embryos	Dr.Kim Monahan	Biology
Recital Hall	Abhinav Gurram	NCSSM	revoAD: A Novel Screening Method for Alzheimer's Disease Dementia & Parkinson's Disease using Handwriting and Speech Input via Machine learning.	Bala Gurram	Biology
Recital Hall	Dhairya Agarwal	NCSSM	Eco-friendly Design and Fabrication of a Microalgae-Based Sponge to Efficiently Remove Oil from Water for Environmental Remediation	Michael Bruno	Environmental Chemistry

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Batte 204	Neelasha Panda	NCSSM	Investigating the Effects of Sodium Benzoate on Lymnea Stagnalis with Rotenone-Induced Parkinson's Disease	Dr. Heather Mallory	Biology
Batte 204	Daksh Gahlot	NCSSM	Improving Glioblastoma Treatment through Computational Drug Optimization	Robert Gotwals	Biology
Batte 204	Emmie Rose	NCSSM	Analyzing the NOx Removal Efficiency and Washing Resistance of Iron Oxide Doped Carbon Nitride Nanosheets When Attached to Recycled Asphalt Pavement Aggregate	Dr. Michael Bruno	Chemistry

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
CWC	Kshitij Teotia	Evergreen Valley	High-Accuracy Machine Learning Approach for Medical-Imaging Cataract Classification	Christian I. Cardozo-Aviles	Biology
CWC	Grace McNamara	NCSSM	Synthesizing a Conductive PEDOT/Alginate Scaffold to Match the Physical and Electrical Properties of Myocardial Tissue	Tim Anglin	Chemistry
CWC	Sutharsika Kumar	NCSSM	Band Structure Modeling of Perovskite Materials with Quantum ESPRESSO for Multijunction Photovoltaic Cell Optimization	Dr. Jonathan Bennett	Physics

Oral Presentation Sessions @ 1:45 PM

Wingate University Campus (Various Locations)

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Hayes 202	Damir Zababurnyn	Catawba College	Evolution and Effects of Economic Theories on International Trade	Eric Hake	Economics
Hayes 202	S.M. Cho	University of North Carolina at Charlotte	Multidimensional Health Benefits of Social Robot Use in a Memory Care Day Program	Dr. Meredith Troutman-Jordan	Gerontology
Hayes 202	Surasya Guduru	University of North Carolina at Charlotte	A New Frontier in Climate Justice Advocacy: Developing the Charlotte Youth Climate Change Symposium	Dr. Erik Jon Byker	Psychology

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Hayes 203	Astrid Bridgwood	Queens University	Monet's Rouen Cathedrals: An Impressionist Exploration of Time, History, and Religion.	Dr. Siu Challons-Lipton	Art History
Hayes 203	Dhairya Desai	University of North Carolina at Charlotte	Aqueous Synthesis of Polyelectrolytes (Ionomers) using Non-metal Based Reducing Agents	Dr. Jordan Poler	Chemistry
Hayes 203	Alayna Adams	High Point University	The effects of gender and race on ACT scores: evidence from the Tennessee STAR data.	Peter Summers	Mathematics and Data Analytics

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Hayes 208	Gabrielle Morgan	Elizabeth City State University	Exploring Binary Numbers: Integer Representations and Algorithms	Usha Kulkarni	Mathematics, Computer Science, and Engineering Technology
Hayes 208	Coreen Mullen	Elizabeth City State	The Application of Logic Gates in the Protection of Life	Usha Kulkarni	Math, Computer Science, and Engineering Technology
Hayes 208	Darius Cummings	High Point University	Specificity and Interpretation in Two Thangkas of the Medicine Buddha.	Dr. Matthew Mitchell; Dr. Carl Helsing	Sociology & Anthropology; Religion & Philosophy

Oral Presentation Sessions @ 1:45 PM

Wingate University Campus (Various Locations)

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Hayes 209	Alyssa Jarvis	Wingate University	Construction of a DNA origami nanoreactor for the study of enzymatic pathways	Patrick Fisher	Biochem
Hayes 209	Priya Thornton	High Point University	Aberrant Dopamine Signal Transduction in a Model of Neurofibromatosis Type 1	Robert Coover	Biology
Hayes 209	Rachel Hunt	Elon University	Fungal Composition in Truffle Orchard Soil	Dr. Antonio Izzo	Eco/Evol

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Cornwell EKS	Jalen London	UNC Charlotte	Demonstration of Covalent Intermediates in the Mechanism of Peptidoglycan O-Acetylation in Gram-Negative Bacteria	Bailey Schultz, Eric Snow	Chemistry
Cornwell EKS	Marcus Barbu	Wingate University	Using Bi-molecular fluorescence complementation assay to test dimerization orientation of Satb1 and Satb2.	Brett Schofield	Biology
Cornwell EKS	Abigail Hemric	Catawba College	Marbled Salamander Population Dynamics in Catawba College's Ecological Preserve	Joe Poston	Biology

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
AV EKS	Bianca Chan	NCCSM UNC Eshelman School of Pharmacy	Identifying inhibitors of the Alternative Lengthening of Telomeres Pathway	Merrill Fronez	Center for Integrative Chemical Biology and Drug Discovery
AV EKS	Siddharth Maruvada	NCCSM	Design and Synthesis of Novel Small Molecule Interleukin-6 Inhibitors for the Amelioration of Inflammatory Bowel Disease Using Model Organism Drosophila Melanogaster	Dr. Michael Bruno	Chemistry
AV EKS	Grace Stutz	Meredith College	Synthesis of Fluorescein and Fluorescein Derivatives	Alexandra Ormond	Chemistry

Oral Presentation Sessions @ 3:00 PM
Wingate University Campus (Various Locations)

Room	Presenter	Instituion	Title	Mentor(s)	Discipline
Hayes 202	Robert Johnson	Catawba College	Industry growth potential for a post covid era	Dr. Joanna Trammel	Business
Hayes 202	Livian Mai	Wingate University	VinFast's Economic Impact in North Carolina	Kristin Stowe	Business

Poster Presentation Sessions @ 10:00 AM
Wingate University Campus, Ethel K. Smith Library

Session	Presenter(s)	Institution	Title	Mentor(s)	Discipline
WU-S1-01	Bryson Hedrick	Appalachian State University	LabVIEW Automation for axial calibration of optical tweezers	Dr. Brooke Hester	Physics
WU-S1-02	Evelyn Kausrud	Catawba College	Main Street Marketplace: Purpose of Food Pharmacy Program to address nutrition insecurity.	Suzanne Bowser	Public Health
WU-S1-03	Katelyn Crabb & Jacy Noble	Catawba College	Exploring the impact of antibiotics on veterinary probiotic viability	Dr. Erin Witalison	Biology
WU-S1-04	Shirley Jacquet & Destiny Capers	Fayetteville State University	INDIVIDUAL EFFECTS OF GALLIC ACID AND CURCUMIN IN INFLAMMATORY BREAST CANCER	Dr. Willieta Gibson	Biology
WU-S1-05	Maggie Fang	NC State University	DNA Purification and Analysis of Tomato Yellow Leaf Curl Virus (TYLCV)	Trino Ascencio-Ibanez	Biochemistry
WU-S1-06	Dominic James, Amanda Leggett, Kendall West, Ethan Boggs	North Carolina State University	Evaluating the Impact of Debris Removal on Tree Height, Tree Mortality, and Soil Nutrients	Zakiya Leggett; Porche Spence	Biology
WU-S1-07	Shannon Lowry	The University of North Carolina at Pembroke	The University of North Carolina at Pembroke Herbarium Digitization	Dr. Lisa Kelly	Biology
WU-S1-08	Sarah Hudson	University of North Carolina at Greensboro	Exposure to Microplastics and Nanoplastics Triggers pro-inflammatory gene expression in Human Aortic Endothelial Cells	Dr. Zhenquan Jia	Biology
WU-S1-09	Aryannah Smith	Wake Technical Community College	Environmentally-Friendly Biomaterials for Photovoltaic Cells	Kumudu Peiris	Chemistry
WU-S1-10	Olivia Ware	Wingate University	To What Extent do Females Alter their Physical Appearance on Social Media and why?	Dr. Daina Nathaniel	Communication

Poster Presentation Sessions @ 10:00 AM
Wingate University Campus, Ethel K. Smith Library

Session	Presenter(s)	Institution	Title	Mentor(s)	Discipline
WU-S1-11	Elias Campbell	Wingate University	The Predicted Satb2 Nuclear Localization Sequence is non-functional.	Brett Schofield	Biology
WU-S1-12	Mackenzie Heaggans	Wingate University	The complex mechanisms used by Mycobacterium Leprae to infect and survive inside host cells.	Brett Schofield	Biology
WU-S1-13	Kasey Hahn	Catawba College	Open Wide, What's Inside - The Oral Microbiome	Dr. Francisco Camacho	Biology
WU-S1-14	Miles D. Lester	Catawba College	EFFECTS OF STREPTOCOCCUS SALIVARIUS M18 PROBIOTIC SUPPLEMENT ON HUMAN ORAL MICROBIOME	Dr. Erin Witalison	Biology
WU-S1-16	Denisse Rosales-Mercado	East Carolina University	Neurocognitive Processes in Children During Talk in the Classroom	Richard Lamb	Psychology
WU-S1-17	Daisy Perez & Gaelle Desert	East Carolina University	Investigating Mechanisms of Synapse Formation	Dr. Karen Litwa	Biomedical Sciences
WU-S1-18	Destiny Capers & Shirley Jacquet	Fayetteville State University	Investigating the role of Gallic acid and Curcumin on Cellular Viability in Inflammatory Breast Cancer Cells	Dr. Willietta Gibson	Cancer biology
WU-S1-19	Clary Taylor	Meredith College	Investigation of Tetrahydrocannabinol (THC) Analogues in North Carolina	Jessica Thorpe	Chemistry
WU-S1-20	Elisabeth Sinicrope	Meredith College	Characterization of reduced enzymatic browning phenotype in transgenic basil plants	Karthik Aghoram	Biology

Poster Presentation Sessions @ 10:00 AM
Wingate University Campus, Ethel K. Smith Library

Session	Presenter(s)	Institution	Title	Mentor(s)	Discipline
WU-S1-21	Alyshena Case & Megan Elliott	Meredith College	Student Perceptions on Gene Drives at Meredith College's Campus	Megan Serr	Biology
WU-S1-22	Nayan Patel	NCSSM	Prediction of Complexity of Transvenous Lead Extraction with Machine Learning Framework Utilizing Preprocedural Computed Tomography.	Kevin Manocha, MD	Computer Science, Medicine
WU-S1-23	Fiona Daly	NIEHS	Use of Integrated Approach to Testing and Assessment (IATA) on Selected Chemicals to Determine Their Developmental Neurotoxic Potential	Helena Hogberg	Toxicology
WU-S1-24	Ishaun Jana	NCSSM	Neutrophil Extracellular Traps (NETs) regulate Fibroblast mediated Collagen Remodeling	Arvind Chandrasekaran	Biology
WU-S1-25	Sanjita Srinath	NCSSM	Designing a Soak Testing Chamber for the Testing of the Degradation of Liquid Crystal Polymer	Dr. Jonathan Viventi	Engineering
WU-S1-26	Prithu Kolar	NCSSM	A Low-Cost Refreshable Braille Display with Minimal Power Consumption	Pramod Kolar	Engineering
WU-S1-27	Zoya Das	NCSSM	Analyzing Genetic Differences/ Evolutionary Patterns Found in Aedes aegypti Mosquitoes Across Different Geographical Regions	Dr. Daniel Schrider	Biology
WU-S1-28	Pratham Madaram	NCSSM	Metaheuristic Swarm-Based Artificial Bee Colony Optimization Algorithm for Neural Network Training in Reinforcement Learning	Collyn Gaffney	Artificial Intelligence
WU-S1-29	Cindy Rubio-Malo	NCSSM	Navel Oranges and Racial Injustice in the U.S. Workforce	Dr. David Cantrell	Humanities
WU-S1-30	Vanessa Tang	NCSSM	Optimization of Camera Sensing to Improve Accuracy of AR-assisted Neurosurgical System	Sarah Eom	Biology

Poster Presentation Sessions @ 10:00 AM
Wingate University Campus, Ethel K. Smith Library

Session	Presenter(s)	Institution	Title	Mentor(s)	Discipline
WU-S1-31	Chisom Duru	North Carolina School of Science and Mathematics-Morganton	Using Peroxidase Application to Inhibit the Spread of the Tobacco Mosaic Virus and Promote Tissue Regeneration in Red Bell Pepper Plants	Jennifer Williams	Biology
WU-S1-32	Audrey Bruening	North Carolina State University	Cross-Cultural Considerations in Survey Design: White and Latina Female Healthcare Fraud Offenders	Dr. Jim Yocom	Sociology
WU-S1-33	Dominic Zecca	North Carolina State University	Fast-Growing Trees For Municipal Wastewater Management	Solomon Ghezehei	Environmental Management
WU-S1-34	Jason Kreger	North Carolina State University	Female Dominance or Power? An examination of intersexual dyadic interactions in ring-tailed lemurs (<i>Lemur catta</i>) applying the Power Framework	Dr. Tara Clarke	Anthropology
WU-S1-35	Cana Gerald & Lauren Srisaguan	North Carolina State University Cedar Ridge High School	Evaluating the Effects of Debris Removal on Understory, Forest Floor Mass, and Plant Coverage, Plant Biomass and Organic Matter	Zakiya Leggett	Biology
WU-S1-36	Maria Wildman & Many V Nallagangu	North Carolina State University Leesville Road High School	Evaluating The Impact of Debris Removal on Soil pH, Soil Temperature, Soil Moisture, and Soil Macronutrients	Zakiya Leggett/Porche' Spence	Biology
WU-S1-37	Alastor	South Piedmont Community College	Minecraft Education Edition: Impressive and Improvable Features	Kathrine Widner	Education
WU-S1-38	Janaya Cover	South Piedmont Community College	Components, Programming, and data collection of a High Altitude Research Balloon (HARB)	Dr. Solomon Guga	engineering, math, and physics
WU-S1-39	C. Grace Bailey & Dillan Jagannath; Robert K. Liu	Summer Ventures in Science and Math Program	Examining the Impact of Socioeconomic Factors on Water Quality in North Carolina	Dr. Anindita Das, Dr. Joel Sanqui, and Mr. Woody Madison	Public Health
WU-S1-40	Vanessa Hughes	UNC Pembroke	Fin Photo identification in Cape Fear River, NC	Dr. Kimberly Jones	Biology

Poster Presentation Sessions @ 10:00 AM
Wingate University Campus, Ethel K. Smith Library

Session	Presenter(s)	Instituion	Title	Mentor(s)	Discipline
WU-S1-41	Shely Acosta	UNCC	Inflammasomes and Macrophage Phagocytosis in Breast Cancer Progression	Didier Dreau	Biology
WU-S1-42	Celine Ortiz, Kirill Afonin, Juan Vivero-Escoto, Laura Robelleo	UNCC	Design, synthesize and characterize RNAfs-loaded PEG-Ce6-PSiO and PEG-Ce6-MSNs.	Kirill Afonin	Chemistry
WU-S1-43	Faith Tootle	UNCC	Creating a Meaningful Building Form through Carving: Freelon's School of Education and Psychology at Elizabeth City State University	Emily Makas	Architecture
WU-S1-44	Peyton Hatley	UNCC	Comparison of Resin Nanotech Beads and ZNR to remove sodium fluorescein in aqueous solution using UV-Vis Spectroscopy	Jordan Poler	Chemistry
WU-S1-45	Henry Thompson	UNCC	Screening Natural Compound Library for DNA Double-Strand Breaks	Christine Richardson	Biology
WU-S1-46	Ava Cox	UNCP	The Characterization of Two Candidate Genes for Interstitial Lung Disease from Whole Exomes: A Pathway Analysis Approach	Dr. Silvia E. Smith Ph.D.	Biology
WU-S1-47	Camden Cook	WPCC	Inferring characteristics from the skull morphology of <i>Andrewsarchus mongoliensis</i>	Jessica Howells	Biology
WU-S1-48	Shamik Bhattacharya, Elias Massoud, Kyo Lee, Adam Terando, Alexander Goodman, Adrienne Wootten, Duane Waliser	Wingate University	Model Averaging Toolbox for Enhanced Climate Change Projections: Methodology and Implementation	Kyo Lee and Elias Massoud	Bayesian Statistics and Programming
WU-S1-49	Jacob-Kurtis Guy & Charlotte Holland	Wingate University	Investigating the Upper and Lower Explosion Limits of Organic Solvents	James Hall; Brandon Tutkowski	Chemistry

Poster Presentation Sessions @ 10:00 AM
Wingate University Campus, Ethel K. Smith Library

Session	Presenter(s)	Instituion	Title	Mentor(s)	Discipline
WU-S1-50	Clare Sheedy	Wingate University	A Content Analysis of a Latvian Refugee: Karlis Leyasmeyer and the Christian Speaking Circuit	Dr. Joseph M. Ellis	Political Science
WU-S1-51	Eric Reeves	Wingate University	How previously held biases affect an individual's interpretation of misinformation and factual information	Dr. Chelsea Kaufman	Political Science
WU-S1-52	Leo Taylor	Wingate University	Exploring Patients' Intention to Act: Seeking a Cardiologist and Communicating with Family after Genetic Counseling for Inherited Heart Diseases	Dr. Cynthia James & Dr. Debra Davis	Medicine Biology
WU-S1-53	Ashe Dalton	Wingate University	Tardigrade Diversity and Abundance in Urban and Rural Environments	Dr. Erika Niland	Biology
WU-S1-54	Charles Chirombe	Wingate University	Analyzing Quality and composition of various essential oils	Dr. Shakena West	Chemistry
WU-S1-55	Aiden Bone	Wingate University	Fundamental Frequencies of Gravitational Waves and Their Harmonics	Dr. Mark Sprague and Dr. John Kenney	Physics
WU-S1-56	Pranav Mettu	World Food Prize (NCSSM)	Determining Solutions to Dietary Issues in India	Sujani Poonuru	Public Health
WU-S1-57	Nicky Liu	NCSSM	Investigating Vulnerabilities within Epithelial-Mesenchymal Transition through YAP/TAZ Codependencies in the Hippo Pathway to Target Cancer Resistance	Rachel Washart, Shane Killarney	Biology
WU-S1-58	Aurora Hagen	Meredith College	The Sex Industry	Daniel Fountain	History, Political Science & International Studies

Poster Presentation Sessions @ 10:00 AM
South Piedmont Community College

Session	Presenter(s)	Institution	Title	Mentor(s)	Discipline
SPCC-S1-01	Berta Vidal Carnero	Catawba College	How Name Popularity and Physical Attractiveness Jointly Influence Trait Judgments	Sheila Brownlow	Psychology
SPCC-S1-02	Heidi Jensen	Chowan University	Effect of Thymol on Wheat	Dr. Torrence Gill	Biology
SPCC-S1-03	Frankie Boyer	Fayetteville State University	HIV-Nef Does Not Influence PCSK9 Expression: The Journey to Clearing Persistent HIV Infection	Nancie Archin, PhD.	Biological and Forensic Sciences
SPCC-S1-04	Nyeisha Epperson	Fayetteville State University	Health Promotion Among African American Churches in Fayetteville	Dr. Kimberly Hardy	Social Work
SPCC-S1-05	Bianka Decilia	Fayetteville State University	Exploring the Mental Health Experience and Needs among College Students	Dr. Erica Campbell	Social Work
SPCC-S1-06	Brandon Tellez-Castillo Wyatt Davidson, Mateo Correa	Gaston College	Inhibition of Malate Dehydrogenase using ligands identified using FRED, POSIT, and HYBRID	Dawn Marin	Arts and Sciences
SPCC-S1-07	Savannah Shook	Gaston College	The Effects of Alcohol on Bone Density in Young Adults	Jodi Valencic Zieverink, MPH, MS	Science /Biology
SPCC-S1-08	Marie Streng	High Point University	Melittin may induce multiple types of programmed cell death in triple negative breast cancer cells	Kevin Suh	Biology
SPCC-S1-09	Abigail Nimmo	High Point University	Novel expression and characterization of lactate monooxygenase from <i>Thermus thermophilus</i>	Dr. Kelsey Kean	Chemistry
SPCC-S1-10	Austin Edwards Shane Cooper, Jake Drew, Henery Wallace	High Point University	The Virtual Production Process	Brian Heagney	Game Design

Poster Presentation Sessions @ 10:00 AM
South Piedmont Community College

Session	Presenter(s)	Instituion	Title	Mentor(s)	Discipline
SPCC-SI-11	Kelly Polk Jane Thompson, Shira Gold	High Point University	Investigating how difficulties regulating emotions affect the relationship between borderline personality disorder and nonsuicidal self-injury	Dr. Laura Nagy	Psychology
SPCC-SI-12	Mary-Kate Easter	High Point University	Evaluation of oxidative stress inducing agents for the treatment of neurofibromatosis type 1-associated peripheral nerve sheath tumors	Cale Fahrenholtz	Pharmacy
SPCC-SI-13	Ciara Duncan	Lees-McRae College	Hurricane Affects on BTBW Capture Rates	Alex Glass	Wildlife Biology
SPCC-SI-14	Kyla Grant	University of North Carolina at Greensboro	The Uptake of 5 μ m Microplastics by Human Aortic Endothelial Cells is Independent of Ion Channels and Endocytic Pathways	Zhenquan Jia	Biology
SPCC-SI-15	Gauri Jha	North Carolina A&T State University	Development of Molecular Tools for Tracking Changes in the Signaling Dynamics of Akt in Primary Cells and Organoids	Robert Newman	Biology
SPCC-SI-16	Drake Gomez	North Carolina State University	Exploitation on the Field - Human Trafficking in Sports	Dr. Maura Nsonwu	Social Work
SPCC-SI-17	Heidi Segars Armaan Raina	North Carolina State University	Human-autonomy teaming: the effects of task domain and priming on performance, trust, and cohesion	Anne McLaughlin	Psychology
SPCC-SI-18	Alexia Cash	North Carolina State University	Optimization of CRISPR/Cas 9 Delivery Using Electroporation	Dr. Mike Sano	Biomedical Engineering
SPCC-SI-19	Abby Rinehard	North Carolina State University	How Are NC Educator Preparation Programs Preparing Pre-Service Teachers to Teach SEL?	Dr. Jill Grifenhagen	College of Education - Teacher Education and Learning Sciences
SPCC-SI-20	Prerana Prabhushankar	North Carolina State University	Development of a Coffee-Based Toothpaste to Inhibit the Growth of Cavity-Promoting Strep mutans on Model Tooth Structures	Gabriel Harris	Department of Food, Bioprocessing, and Nutrition Sciences

Poster Presentation Sessions @ 10:00 AM
South Piedmont Community College

Session	Presenter(s)	Instituion	Title	Mentor(s)	Discipline
SPCC-SI-21	Sarah Smith Zofia Cavalli	North Carolina State University	New protocol for investigating the presence and composition of Microplastics in the stomach contents of North Carolina marine predators	Tal Ben-Horin	College of Veterinary Medicine
SPCC-SI-22	Thierry Moss	Phillip O. Berry Academy of Technology	Practical Applications of Category Theory in Solving and Modeling Traveling Salesman Problems	Ezekiel Hokett	Mathematics
SPCC-SI-23	Abigail Emanuel	Queens University of Charlotte	Light Based Bioprinting	Soroush Khosravi Dehaghi	Bioengineering
SPCC-SI-24	Maria Garcia-Castillo	Queens University of Charlotte	Determining the Sex of Raptors Using Morphometrics and Molecular Techniques	Dr. Jennifer Cook-Easterwood	Biology
SPCC-SI-25	Jackqueline Nguyen	The University of North Carolina at Chapel Hill	Investigating the Effects of Disperse Azo Dyes on Environmental Peanut Sensitization	Timothy Moran	Center of Environmental Medicine, Asthma, and Lung Biology
SPCC-SI-26	Sasha Sembur	The University of North Carolina at Charlotte	The Fairness of Disciplinary Action in North Carolina's Local Education Agencies: Risks and Recommendations	Ms. Kim Mitchell	Department of Political Science and Public Administration
SPCC-SI-27	Halle Theriault Quinn Foti, Kevin Guo	University of North Carolina at Asheville	Comparing Models for Acoustic Wave Propagation in Corrugated Tubes	James Perkins	Physics and Astronomy
SPCC-SI-28	Milan Toomer Kimberly Komatsu	University of North Carolina at Greensboro	Understanding the role of mutualistic bacteria in driving coexistence among legume plants in mesic grasslands	Kimberly Komatsu	Biology
SPCC-SI-29	Lillian Matthews	University of North Carolina at Pembroke	Mapping of the Lumber River in Robeson County and its Process	Nathan Phillippi	Geography
SPCC-SI-30	Thalia Crespo	University of North Carolina at Pembroke	Annotation of the Fmr1 gene, a negative regulator of the insulin receptor signaling pathway, in Drosophila suzukii	Maria Santisteban	STEM

Poster Presentation Sessions @ 12:30 PM
South Piedmont Community College

Session	Presenter(s)	Institution	Title	Mentor(s)	Discipline
SPCC-S2-01	Elaine Smith	Campbell University	Impact of Nutrition on College Women's Menstrual Health	Sarah Christie	Public Health
SPCC-S2-02	Hannah Vogel	Campbell University	Assessing the Relationship Between Indicators of ADHD and Depression/Anxiety	Dr. Jutta Street	Psychology
SPCC-S2-03	Hunter Sjobom	Catawba College	The HTLV-1 basic leucine zipper factor alters host cell metabolism	Dr. Amanda Rushing	Biology
SPCC-S2-04	William Mayfield Tobias Mielke, Brian Kaelo, Nate Bruce	Catawba College	Development and early implementation of a new feral swine population control program in the Yadkin-Pee Dee River Basin	Luke Dollar	Environmental Management and Conservation
SPCC-S2-05	Brian Kaelo Andrew Jacobson	Catawba College	Examining the impact of flashing lights on livestock predation	Andrew Jacobson	Biology
SPCC-S2-06	Kennedy Kaperonis	East Carolina University	Medic to Nurse: Developing a Pipeline for Special Forces Medics	Dr. Thompson Forbes III	Nursing
SPCC-S2-07	Brady McKay	East Carolina University	Analyzing Disaster Recoveries with Iterative Drone Imagery	Daniel V. Perrucci	Engineering and Construction Management
SPCC-S2-08	Rane Parr	Elon University	Unveiling the Benefits: Long-Term Impacts of Cover Crops on Soil Health in No-Till Corn-Soybean-Wheat Systems	Sirena Hargrove-Leak	Agriculture
SPCC-S2-09	Tyrone Salters Icesis Meeks, Stisti Palit, Subir K Nagdas	Fayetteville State University	Role of Epididymis in the Recognition and Elimination of Non-Viable Spermatozoa	Subir Nagdas	Biology
SPCC-S2-10	Bianka Decilia	Fayetteville State University	Exploring the Mental Health Experiences and Needs among College Students	Dr. Erica Campbell	Social Work

Poster Presentation Sessions @ 12:30 PM
South Piedmont Community College

Session	Presenter(s)	Institution	Title	Mentor(s)	Discipline
SPCC-S2-11	Damian Nikolov	Gaston College	I-Tree and Urban Rainwater Management	Marguerite Bishop	Biology
SPCC-S2-12	Alexandra N Zimmerman	High Point University	Personality and Feelings of Obligation in Relation to Contact with Parents and In-laws	Deborah Danzis	Psychology
SPCC-S2-13	Pratishrut Kamal	NC State University	MEAM: A novel, low-cost algorithm utilizing ensemble learning with Audio, Visual, and Text-based applications to generate an overall human emotion	Dr. Manish Kumar	Psychology
SPCC-S2-14	Perry Berlin	NC State University	Designing Composting Systems to Concentrate Carbon Dioxide for Long Term Storage	Dr. Joe Sagues	Engineering
SPCC-S2-15	Riddhik Basu	North Carolina State University	The Mechanistic Association between Cognition and Alzheimer's Disease using Machine Learning methods	Arkaprava Roy	Biostatistics
SPCC-S2-16	Ian Ireland	North Carolina State University	Synthesis of a chiral pyrrole for ring A of bacteriochlorophylls c-e.	Jonathan Lindsey	Chemistry
SPCC-S2-17	Sneha Nandapradeepan	North Carolina State University	Barriers to Undergraduate Research for Underrepresented Students	Holly Hurlburt	Sociology
SPCC-S2-18	Justice Skiner	North Carolina State University	Insights from Animal-Associated Bacteria in N.Y.A.B.G. Samples	Dr. Carter Clinton	Biology
SPCC-S2-19	Maya Roseboro	The University of North Carolina Charlotte	A Study of the Relationship between Private Ownership of Guns and Safety using Machine Learning	Marco Scipioni	Data Science
SPCC-S2-20	Samantha Webb	University of North Carolina - Charlotte	THE INFLUENCE OF BODY WEIGHT ON HbA1c WHEN PREDICTING DIABETES IN ACTIVE OLDER ADULTS	Trudy Moore-Harrison	Public Health

Poster Presentation Sessions @ 12:30 PM
South Piedmont Community College

Session	Presenter(s)	Institution	Title	Mentor(s)	Discipline
SPCC-S2-21	Kirsten Babsay	University of North Carolina at Charlotte	Exploring Barriers to Arts Participation in Charlotte	Dr. Vaughn Schmutz	Sociology
SPCC-S2-22	Ashley Choi	University of North Carolina at Charlotte	Regulation of the Oncogenic Src Kinase through Chaperone Code Phosphorylation	Megan M Mitchem, Andrew W Truman	Biology
SPCC-S2-23	Emily Hayden	university of north carolina at charlotte	Degradation of Polyfluorinated Substances with nano Zero Valent Aluminum	Jordan Poler	Chemistry
SPCC-S2-24	Tiana Lillevig	University of North Carolina at Greensboro	Utilization of Chiral Brønsted Acids to form Enantioenriched δ -Lactams.	Dr. Kimberly Petersen	Chemistry
SPCC-S2-25	Kayla Wingfield	University of North Carolina at Pembroke	The Children of Willful Ignorance: The Exploitation of US and Migrant Children	Peter Grimes	English
SPCC-S2-26	Paisley Locklear	Univesity of North Carolina at Pembroke	Powdery Mildew: Investigating the Disease in Varieties of Watermelon (<i>Citrullus lanatus</i>) from Several US Locations During a USDA-ARS Internship	Dr. Shaker Kousik	Biology
SPCC-S2-27	Michaela Brown	Wake Tech Community College	UNC Age-Based Genomic Screening (ABGS) : Social Media Usage & ABGS Community Outreach	Grace Byfield, Juhi Salunke, and Sabrina Powell	Public Health
SPCC-S2-28	Damien A. Johnson II	Wake Technical Community College	MEASURING DICHROISM EXHIBITED IN P3HT MATERIAL UNDER POLARIZED LIGHT	Ben Hines, Jessica Reel, Harald Ade	Chemistry

Poster Presentation Sessions @ 12:30 PM
Wingate University Campus, Ethel K. Smith Library

Session	Presenter(s)	Instituion	Title	Mentor(s)	Discipline
WU-S2-01	Chloe Thompson	Appalachian State University	Using a tunable lens for focal plane adjustment in optical tweezers	Dr. Brooke Hester	Physics
WU-S2-02	Tobias Mielke	Catawba College	The impact of feral hogs on the forest understory in the North Carolina piedmont	Jay F Bolin	Biology
WU-S2-03	Lance Sherbert Cheyenne Kennedy, Mabre Dawson	Fayetteville State University	Air Pollution and its Relationship with Dementia	Pius Nyutu	Psychology
WU-S2-04	Tanvi Sharma	North Carolina School of Science and Math Morganton	Biosynthesis of Silica Nanoparticles using Spent Grain	Jennifer Williams	Biology
WU-S2-05	Keya Mahajan	North Carolina School of Science and Mathematics	Lessons from Women-of-Color-Led Labor Movements: Protecting University Students from Sexual Violence	David Cantrell	Gender Studies
WU-S2-06	Kovida Vupputuri	North Carolina School of Science and Mathematics	Decoding the Diet of a Local Owl Population	Jennifer Williams	Biology
WU-S2-07	Caroline Zhang	North Carolina School of Science and Mathematics - Morganton	Effect of sulfakinin/cholecystokinin-type peptide ArSK/CCK1 on satiety and energy metabolism of <i>Asterias vulgaris</i>	Jennifer Williams	Biology
WU-S2-08	Margaret Claire Piatt	North Carolina State University	Higher life satisfaction among older adults with cognitive impairments during COVID-19	Shevaun D. Neupert	Psychology
WU-S2-09	Marisa Cramer	North Carolina State University	Feeling older and mental health among cognitively impaired older adults	Shevaun D. Neupert	Psychology

Poster Presentation Sessions @ 12:30 PM
Wingate University Campus, Ethel K. Smith Library

Session	Presenter(s)	Instituion	Title	Mentor(s)	Discipline
WU-S2-10	Oliver Roper	North Carolina State University	Measures of Potential Barriers to Urban Pollinators in Raleigh, NC- What Counts as a Barrier?	Elsa Youngsteadt	Biology
WU-S2-11	Kate Perez Jimenez	Wingate University	The impact of Chlamydia Trachomatis on New Embryonic Cells: Molecular mechanisms, replication, and death.	Dr. Brett Schofield	Biology
WU-S2-12	Kiara Rillera	Wingate University	Comprehensive Analysis of Mycobacterium tuberculosis Infection	Dr. Brett Schofield	Biology
WU-S2-13	Kymmi Phan	Wingate University	Salmonella typhi (Typhoid fever)	Dr. Brett Schofield	Biology
WU-S2-14	Aretha Carew	Wingate University	The Deadly Ebola Virus: Infections and Immune Responses	Dr. Brett Schofield	Biology
WU-S2-15	Tia Cabell	Wingate University	How Chlamydia Trachomatis hides from the immune system	Dr. Brett Schofield	Biology
WU-S2-16	Jack Mayfield	Wingate University	The molecular mechanisms that allow Influenza A to survive in host cells.	Dr. Brett Schofield	Biology
WU-S2-17	Matthew Mair	Appalachian State University	Factors That Impact Farmer Willingness to Participate in Conservation Programs	Greg Howard	Economics
WU-S2-18	Nicholas Woodlief	Campbell University	Asymmetric Radical Catalysis with Thiamine-Dependent Enzymes	Evan Reynolds	Chemistry

Poster Presentation Sessions @ 12:30 PM
Wingate University Campus, Ethel K. Smith Library

Session	Presenter(s)	Instituion	Title	Mentor(s)	Discipline
WU-S2-19	Dayli Williams	Campbell University	Correlation of ciprofloxacin concentration in pharmaceutical tablets and attenuated total reflectance Fourier transform infrared spectra	Dr. Jordan Womick	Chemistry
WU-S2-20	Beonka Sharpe	Fayetteville State University	Measurement of Orofacial Pain in a Mouse Model of Chronic Primary Pain	Dr. Andrea Nackley	Biology
WU-S2-21	Aaliyah Williams	Fayetteville State University	PREDICTING MILITARY COUPLES' LIFE SATISFACTION FROM THEIR MENTAL AND PHYSICAL WELL-BEING	Dr. Pius N. Nyutu	Psychology
WU-S2-22	Claire Jacoby	Meredith College	Examining Types of Obsessions and Compulsions During Pregnancy	Dr. Pamela Norcross and Dr. Betty-Shannon Prevatt	Psychology
WU-S2-23	Vanessa Jaimes Bustos Jakelin Santos Reyes, Katie Juarez Olvera	Meredith College	The synthesis of Oleanolic Acid and its Deveritaives in Yeast Cell Cycles	Dr. Walda Powell and Dr. Karthik Aghoram	Biology
WU-S2-24	Madelyn Strange	Montreat College	A Community Inventory of Freshwater Turtles in the Lake James Watershed	Joshua Holbrook	Ecology
WU-S2-25	Poorvaja Chandramouli	NCSSM and Wake Forest Institute for Regenerative Medicine	Developing 3-D Gut Organoids and Targeting Specialized Cells to Investigate Etiology in GI-Symptomatic Children with Autism	Yosauri Fernandez Figuereo, Stephen J. Walker	Biology
WU-S2-26	Jesus Lopez De Los Santos	NCSSM, UNC-C	Replacing Lithium Expiriment	Gregory Wickliff, Jennifer Kant	Chemistry
WU-S2-27	Rayna Williamson LaBarron Hill	North Carolina A&T State University	How African American College Students' Heavy Drinking Behaviors Turn into Alcoholic Disorders	LaBarron Hill	Psychology

Poster Presentation Sessions @ 12:30 PM
Wingate University Campus, Ethel K. Smith Library

Session	Presenter(s)	Instituion	Title	Mentor(s)	Discipline
WU-S2-28	Jonathan Zeng	North Carolina School of Science and Math	Evaluating tracking and mapping algorithms using a game-engine based emulator.	Ying Chen, Maria Gorlatova	Computer Science
WU-S2-29	Prisha	North Carolina School of Science and Math	Evaluating Degradable Resin Formulations for 3D Bioprinting	Jillian Perry	Chemistry
WU-S2-30	Rayhan Pathan	North Carolina School of Science and Math	What was the Impact of Covid-19 on Non Communicable Diseases like Alzheimer's ?	Dr. Himanshu Batra (The New York Academy of Sciences)	Neuroscience
WU-S2-31	Shubhan Bhattacharya	North Carolina School of Science and Mathematics	Maldrone: An Automated System to Detect and Treat Malaria Mosquito Habitats	Suchandra Bhattacharjee	Engineering and Public Health
WU-S2-32	Nandini Aggarwal	North Carolina School of Science and Mathematics	Aberrant Functional Connectivity of the Default Mode Network in ADHD Youth	Mackenzie Mitchell, Jessica Cohen (PI)	Neuroscience
WU-S2-33	Sydney Yeboah	North Carolina School of Science and Mathematics	A Docking Study and Modification of Eugenol to Increase Selectivity in Acetylcholinesterase Inhibition	Tim Anglin	Chemistry
WU-S2-34	Ashika Kamjula	North Carolina School of Science and Mathematics - Durham	PRISMA-CVD: Predictive Risk Identification and Susceptibility Modeling Analysis for ALS Populations using Cardiovascular Disease (CVD) Metric Optimization	Mr. Robert Gotwals	Public Health
WU-S2-35	Andrea Stancescu	North Carolina State University	Correlations Between Advising and Departmental Factors with Doctoral Students' Career Plans	Dr. Marcia Gumpertz	Statistics
WU-S2-36	Youssef Kozman	North Carolina State University	Politically conservative individuals are more susceptible to negative health effects due to election-related stress	Shevaun Neupert	Psychology

Poster Presentation Sessions @ 12:30 PM
Wingate University Campus, Ethel K. Smith Library

Session	Presenter(s)	Instituion	Title	Mentor(s)	Discipline
WU-S2-37	Fiona Prestemon Gouri Kallambella	North Carolina State University	The Role of Parents in Resolving Children's Peer Conflicts: A Participatory Science Observational Study	Dr. Kelly Lynn Mulvey	Psychology
WU-S2-38	Jaylen King	North Carolina State University	Optimizing Hemp Fiber Processing With Sustainable Solutions	Lucian Lucia, Stephen Agwuncha	Forest Biomaterials
WU-S2-39	Adam Ehmke Alexander Parillo, Wren Voorhees, Sydney Gardner	North Carolina State University	Exploring Mites on Lemurs	Lisa Paciulli, Adam Hartstone-Rose	Biology
WU-S2-40	Ayah Zoabi	Queens University	Data-Driven Approach for Smart On-Demand Public Transit in Charlotte in Underserved Communities- a Pilot Study for User Acceptance and Early Data Collection	Dr. Zahra Bahrani-Mostafavi	Public Health and Transportation
WU-S2-41	Peggy Chen	Summer Ventures in Science and Math Program	Modeling the Impact of Storm Surge Flooding and Associated Costs on North Carolina Coastal Region Corn and Soybean Fields via Remote Sensing	Dr. Daniel Dickerson	Biology
WU-S2-42	Sophia L. Wang	Summer Ventures in Science and Math Program	Disparities in Mental Health Across Counties in North Carolina	Dr. Allison Elowson and Kristen Fye	Public Health
WU-S2-43	Justine Tobes	Summer Ventures in Science and Mathematics at East Carolina University	Baseline Geomorphological Impacts of Living Shoreline Implementation at Hammocks Beach, North Carolina	Tess Johnson	Environmental Science
WU-S2-44	Joseph	Uniersity of North Carolina Charlotte	Examining the effects of commercializing and co-opting Body Neutrality on Instagram	Dr. Jennifer Best Webb	Psychology
WU-S2-45	Fatima Maciel	University of California, San Diego	Voting Rights and Federalism: Understanding the California Voting Rights Act	Luis Fraga	Political Science

Poster Presentation Sessions @ 12:30 PM
Wingate University Campus, Ethel K. Smith Library

Session	Presenter(s)	Instituion	Title	Mentor(s)	Discipline
WU-S2-46	Wolfie Layne	University of North Carolina at Asheville	Geometric Dissections of the squares that can demonstate the Pythagorean Thereom for any right triangle	Peter Kendrick	Math
WU-S2-47	Yara Kayali	University of North Carolina at Charlotte	Standardized method for identifying Duffy blood group genotypes and submicroscopic Plasmodium infection in febrile patients	Dr. Eugenia Lo	Biology
WU-S2-48	Roshna Rangunathan	University of North Carolina at Charlotte	Conservation of Key Residues Involved in Proton Pumping Pathways in Respiratory Complex I	Md. Raihan Uddin, Dr. Marilyn Gunner	Biology
WU-S2-49	Nicole Wiktor	University of North Carolina at Charlotte	Evaluating the Influence of Community Engagement Initiatives on Students Pursuing Computer Science Degrees through Advanced Text Processing	Mohsen Dorodchi	Computer Science
WU-S2-50	Shannon Lowry	University of North Carolina at Pembroke	The University of North Carolina at Pembroke Herbarium Digitization	Dr. Lisa Kelly	Biology
WU-S2-51	Bapange (Grace) Kasonga	Wake Technical Community College	Optical Tuning of P3HT Thin Films through Solvent Effects	Jessica Reel	Chemistry
WU-S2-52	Jasmine Strickland	Warren Wilson College	Pork Quality Trait Comparisons Of Conventional and Pasture-Raised Pork	Elizabeth Benavides	Animal Science
WU-S2-53	Emma Whisnant	Western Piedmont Community College	"Population Dynamics of American Ginseng"	Jessica Howells and Stacey Johnson	Biology
WU-S2-54	Princess Iyanna Harts	Wingate University	Understanding How Kratom, an Opioid Marketed as a Natural Supplement, Affects Liver Function	Tracy L. Davis	Biology

Poster Presentation Sessions @ 12:30 PM
Wingate University Campus, Ethel K. Smith Library

Session	Presenter(s)	Instituion	Title	Mentor(s)	Discipline
WU-S2-55	Makinna Wolf	Wingate University	How has social media changed how the NFL promotes its games	Daina Nathaniel	Communications and social media
WU-S2-56	Rylie Richardson Kaitlyn Michelle Rodebaugh	Wingate University	Dark Tetrad Personality and Aesthetic Preference	Dr. Breeden	Psychology
WU-S2-57	Samuel Ogburn	Wingate University	Identification and Quantification of Estrodial: Progression from Gas Chromatography Mass Spectrometry Method Development to Standard Extraction Procedure	Heather V. Clontz	Chemistry
WU-S2-58	Jimena Sofia Correa Cortez	Wingate University	Assessing the Density of Painted Buntings in Maritime Forests of Coastal North Carolina	Evangelyn Buckland	Biology
WU-S2-59	Makayla Caserma	Wingate University	The host range of Microbacteriumphage Jerbirus within genus Microbacterium	Alexandra Jerby	Biology
WU-S2-60	Maren Lamb	Guilford College	Spitting Images	Katy Collier	Art

Poster Presentation Sessions @ 2:30 PM
Wingate University Campus, Ethel K. Smith Library

Session	Presenter(s)	Instituion	Title	Mentor(s)	Discipline
WU-S3-01	Mercedes Barker Stephanie Quintanilla	Catawba college	Metagenomic approach to eDNA	Francisco Camacho	Biology
WU-S3-02	Tina Masika Dymond Thames	Catawba College	Analysis of Soil Microbiota Strains with Poly-3-hydroxybutyrate (PHB)-Degrading Capabilities	Carmony Hartwig	Biology
WU-S3-03	Natalie Jones	NCSSM	Evaluating the Complement Systems of Mice and Humans	Gowthami Arepally, Sanjay Khandelwal	Hematology
WU-S3-04	Kara Solomon Sophia Bogan and Juno Pilson	Meredith College	Investigating the impacts of stress, Bd, and Bsal on local amphibian populations	Dr. Megan Serr	Biology
WU-S3-05	Namrata Pradeep	NCSSM Duke University Superfund Center	Combined exposure to polyaromatic hydrocarbons and heavy metals leads to neurobehavioral impairments in zebrafish	Dr. Edward Levin	Toxicology
WU-S3-06	Melis Su Serengil	North Carolina School of Science and Mathematics	QSAR-guided Design of Novel Drug Candidates Targeting the P2X4 Receptor	Jennifer Williams	Biology
WU-S3-07	Lacy Wright	North Carolina State University	Perceptions of socio-economic status and control predict political participation.	Shevaun D. Neupert	Psychology
WU-S3-08	Edis Nokic	Wingate University	A Study on the Effect of Taxation on Sweden's Economic Growth and Well-being Throughout History	Dr. Kristin Stowe	Business Honors Program
WU-S3-09	Gunnar Morris	Wingate University	Satb1 and Satb2 form homo- and hetero-dimers with each other in a DNA-independent manner	Brett Schofield	Biology
WU-S3-10	Eσμα Pajt	Wingate University	HIV and its molecular mechanisms inside the cell	Dr. Bret Schofield	Biology

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Session	Presenter(s)	Instituion	Title	Mentor(s)	Discipline
WU-S3-11	Lannie Egan	Wingate University	Histoplasma capsulatum: How to Make a Host a Home	Brett Schofield	Biology
WU-S3-12	Joseph Blake Heckenlaible	Appalachian State University	Quantifying thermal effects in optical trapping of metallic nanoshells	Brooke Hester	Physics and Astronomy
WU-S3-13	Paul Dekester Suzanne Bowser	Catawba College	Effects of Pre-Sleep Casein Intake on Athletes' Recovery According to Whoop Band Data	Suzanne Bowser	Health Science & Human Performance
WU-S3-14	Mariah Lambert	Catawba College	Investigation of effects of decomposing bodies on plant growth and mineral content using HPLC and ICP	ChaMarra	Chemistry
WU-S3-15	Allison Fredrick	Catawba College	UV Damage- Epithelial Cancer Cell Research	Erin Witalison	Cellular and Molecular Biology
WU-S3-16	Daniel Ruiz Dylan Cienfuegos	Catawba College	Real-life Zombies: Cordyceps in our Backyard	Carmony Hartwig	Biology
WU-S3-17	Salem Fleming	Catawba College	Ashes to ashes: documenting the annual decline of a green ash dominated swamp in the NC piedmont since 2019	Jay F Bolin	Environment and Sustainability
WU-S3-18	Amy Turner	East Carolina University	Evaluation of the Fresh Start Program from the Patient's Perspective	Dr. Lauren Sastre, PhD, RDN, LDN	Department of Nutrition Science
WU-S3-19	Katie Wilson	Gardner-Webb University	An In Vitro Study of the Antimicrobial Effects of Essential Oils on Human Skin Microbiota	Dr. Meredith Rowe	Natural Science Department
WU-S3-20	Jade Stewart	High Point University	The "Why" Factors Involved In Students' Post-High School Pathway Decisions	Dr. Mark Plume	Sociology

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Session	Presenter(s)	Instituion	Title	Mentor(s)	Discipline
WU-S3-21	Kiara Busby	High Point University	Loratadine derivatives: Novel antibiotic adjuvants combating antibiotic resistance	Dr. Meghan Blackledge	Chemistry
WU-S3-22	Dylan Amiri	Mecklenburg Neurology	Increased Prevalence of Hypertension Observed in OSA Patients and Its Contribution to OSA Severity: A Clinical Retrospective Chart Review	Michael Amiri	Neurology
WU-S3-23	Alexandria Crank	Meredith College	Barriers to On-Campus Counseling for Meredith Students Experiencing Symptoms of Anxiety and Depression	Dr. Betty-Shannon Prevatt	Psychology & Social Work
WU-S3-24	Alexandra Cardoso Garcia	Meredith College	Topology of the Universe	Phillip Andreae	Mathematics
WU-S3-25	Rishika Jalagam	NCSSM and Duke University	Comparing Housing Dispartiy Across Geospatial Data	Dr. Omer Ali	Samuel DuBois Cook Center for Social Equity
WU-S3-26	Shamik Bhattacharya Emma Mullins, Alyssa Paull, Carter Macklin	NCSU	Analyzing Power Plant Emissions and Environmental Footprint Near NC State	Jennifer Richmond-Bryant	CNR - Dept. FER
WU-S3-27	Kaliah Moore Tyree Thomas	North Carolina A&T State University	Digitalizing Stormwater Infrastructure System Using Reality Capture	Yuhan Jiang	Built Enviorment
WU-S3-28	Ashley Jones	North Carolina Agricultural and Technical State University	Evaluating milk cells using three different techniques	Dr. Mulumebet Worku	Biology
WU-S3-29	Erika Pearsall	North Carolina Agricultural University	Effects of mushroom extract on bovine oocyte invitro maturation and lipid metabolism	Dr. Lauren Mayo	Animal Science
WU-S3-30	Anisha Binay & Aditya Binay	North Carolina School of Science and Math	Fair Political Redistricting: A Mathematical Approach	Dr. Kamesh Munagala	Math

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Session	Presenter(s)	Instituion	Title	Mentor(s)	Discipline
WU-S3-31	Finn Leahy Christopher Boyer and Siddharth Penmetsa	North Carolina School of Science and Mathematics	Ordering the Vertices and Edges of Complete Graphs, and Other Graph Topologies	Dr. Michael Lavigne	Math
WU-S3-33	Jerin Mathew	North Carolina School of Science and Mathematics	Neurobehavioral impairments in rats after combined exposure to PAHS and Heavy Metals.	Dr Edward Levin	Behavioral Science
WU-S3-34	Morgan Cargill	North Carolina School of Science and Mathematics	Generation of Antibodies for detection of Lassa virus infection	Dr. Michael Dee Gunn, Dr. Barbara Lipes	Medicine, Immunology
WU-S3-35	Riley Westman	North Carolina State University	Environmental Drivers of Wetland Macroinvertebrate Communities in Wake County, NC	Dr. Katherine Martin	Forestry and Environmental Resources
WU-S3-36	Lea Osman	North Carolina State University	Large Scale Production of Viral Protein Rep for Antiviral Testing Strategies	Trino Ascencio-Ibáñez	Molecular and Structural Biochemistry
WU-S3-37	Shrusti Patel	North Carolina State University	A systematic Combustible Dust testing flowchart to facilitate Dust Hazard Analysis or Assessment (DHA) within the framework of Process Safety Management (PSM).	Dr. Angela Allen	Forestry and Environmental Resources
WU-S3-38	Allie Monahan Hallie Gooch, Maddie Greenway	North Carolina State University	Lemur Mother Anxiety and Infant Sex Differences Project	Lisa Paciulli	Biological Sciences
WU-S3-39	E Redick	North Carolina State University	Evaluating floral traits for a bee-friendly campus	Elsa Youngsteadt	Biological Sciences
WU-S3-40	Elizabeth Garmon	North Carolina State University	Novel Battery Thermal Management System For Electric Vehicle Batteries Under Fast Charging Conditions Using Desiccants	Sajjad Bigham	Mechanical and Aerospace Engineering

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WU-S3-41	Mary Gallaher Corina Espelien and Jason Forman	North Carolina State University/UNC- Chapel Hill	Pregnancy Seat Belt Guidance in Vehicle Owner's Manuals from 2018-2022	Corina Espelien and Jason Forman	Joint Department of Biomedical Engineering
WU-S3-42	Isabelle Rainier	Queens University of Charlotte	A Behavioral Approach Towards Government Polices on Electric Vehicles	Steven Cox	McColl School of Business- Marketing
WU-S3-43	Emily Alam	NCSSM	Reduction of the abundance of antibiotic-resistant bacteria (ARBs) in contaminated soil using modified biochar	Dr.Mallory	Biology
WU-S3-44	Adithi Srikrishna	University of North Carolina at Chapel Hill	Looking for Latent Subtypes of Alzheimer's Disease from Neuroimages	Dr. Guorong Wu	Psychiatry
WU-S3-45	Shashank PB	University of North Carolina at Charlotte	Understanding the Attitudes of Health Care Providers in South Africa	Dr. Heather Smith	Levine Scholars Program
WU-S3-46	Kyla Grant	University of North Carolina at Greensboro	The Uptake of 5 μ m Microplastics by Human Aortic Endothelial Cells is Independent of Ion Channels and Endocytic Pathways	Zhenquan Jia	Biology
WU-S3-47	Bailey Hrobak	University of North Carolina at Pembroke	The Impact of Honeydew versus Non-Honeydew Insects on Ants in Longleaf Pine Savannas	Dr. Lisa Kelly. Dr. Kaitlin Campbell	Biology
WU-S3-48	Nam Phan	Wake Technical Community College	Low-Cost Dye Sensitized Photovoltaic Cell Developed with Hibiscus sp.	Dr. Kumudu Peiris	Chemistry
WU-S3-49	Johnny Nguyen Isaiah Dunn, Genesis Mendiola	Wingate University	Evidence of Immunologic Memory in an Innate Immune Model	Dr. Acchia Albury	Biology
WU-S3-50	Livian Mai	Wingate University	VinFast's Economic Impact in North Carolina	Kristin Stowe	Business

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Session	Presenter(s)	Instituion	Title	Mentor(s)	Discipline
WU-S3-51	Paris Brewster Aliyah Goldsmith	Wingate University	Design and Assembly of a DNA Origami Nanoreactor	Patrick Fisher	Biology
WU-S3-52	Niraj Panthi	Wingate University	Analyzing the Gambler's Ruin Problem: A Mathematical Exploration	Dr. Kayla Javier	Mathematics
WU-S3-53	My Phan	Wingate University	Molecular Mechanism of Salmonella enterica	Brett Schofield	Biology

