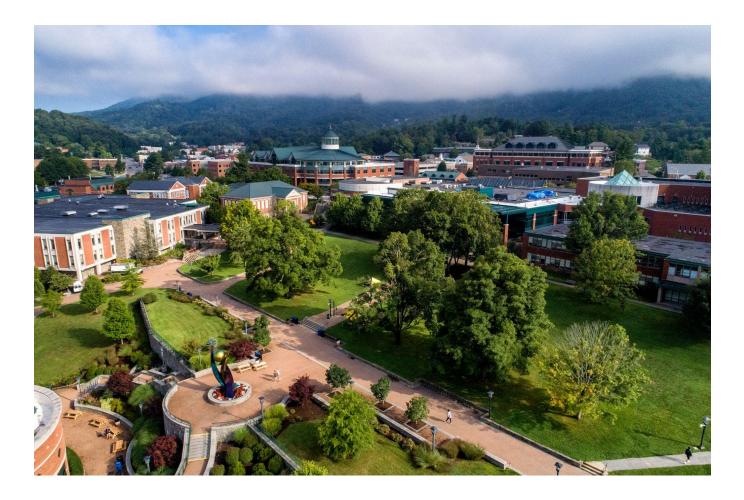


28th Annual Celebration of Student Research and Creative Endeavors

Session Schedule April 16, 2025



Event Information

Doors Open at 8:30am. All presentations occur on the 4th Floor Plemmons Student Union. There is a short break between 12:00-1:00pm Poster Competition Awards are announced at 12:45pm.

Poster Sessions include 2 sessions in the morning and 2 sessions in the afternoon. Morning Session 1 - 9:00am -10:30am.

This session also includes the Poster Competition where Undergraduate and Graduate students were selected to participate based on reviews of their abstracts. They will present their poster to a panel of judges and the top 3 in each category will be selected. Morning Session 2 - 10:40am -12:00pm Afternoon Session 1 - 1:00pm - 2:30pm Afternoon Session 2 - 2:40pm - 4:00pm

Poster boards are 4 feet by 4 feet. Numbers are assigned to posters - please look for your poster number upon arrival. Please arrive at least 10 minutes before your presentation to place your poster on the assigned board.

Oral Sessions include 2 sessions in the morning and 3 sessions in the afternoon. Oral Session 1 - 9:00am - 11:20am

Oral Session 2 - 10:40am - 12:00pm Oral Session 3 - 1:00pm - 2:20pm

Oral presentations are 20 minutes in length allowing for at least 5 minutes for questions. Please arrive at least 10 minutes before your scheduled session in order to upload your presentation. Please stay for the entire session. Oral presentations will occur in either room 415 or 417 Plemmons Student Union.

Annual Poster Competition - 9:00-10:30am - Parkway Ballroom

	Poster Number
Graduate Student Poster Competition Finalists	
Caroline Fehlman, Geography Graduate Student - Masters Faculty Mentor: Maggie Sugg, Geography and Planning Co-Author(s): Maggie Sugg; Dennis Guignet; Zhiyuan Yao Title: Maternal Healthcare Access Disparities in North Carolina, 2016-2019: A Fine-Scale Geospatial Analysis	PC1
Jenna Hall, Biology Graduate Student - Masters Faculty Mentor: Mary Kinkel, Biology Co-Author(s): N/A Title: THE ROLE OF GUT MOTILITY GENES IN ZEBRAFISH	PC2
Kaylee Noble, Nutrition Graduate Student - Masters Faculty Mentor: Alisha Farris, Nutrition and Health Care Management Co-Author(s): Emily Bowles, Dr. Brook Harmon, Dr. Heather Schier Title: Evaluating the Effectiveness of a Cultural Foods Course on Cultural Competence Through a Survey	PC3
Jose Picado, Exercise Science Graduate Student - Masters Faculty Mentor: Alan Needle, Public Health and Exercise Science Co-Author(s): Dr. Herman van Werkhoven, Dr. Kristen Nicholson, Dr. Rene Salinas Title: PULSE VS KINATRAX: CAN CONCURRENT VALIDITY BE ESTABLISHED WHEN COMPARING IMU TO MARKERLESS MOTION CAPTURE ELBOW VARUS TORQUE IN COLLEGIATE PITCHERS?	PC4
Kyle Vetter, Business Administration Graduate Student - Masters Faculty Mentor: Dennis Guignet, Economics Co-Author(s): N/A Title: THE IMPACTS OF MITIGATING HAZARDOUS CHEMICAL RELEASES ON INFANT HEALTH	PC5
Sean Doherty, Exercise Science Graduate Student - Masters Faculty Mentor: Herman van Werkhoven, Public Health and Exercise Science Co-Author(s): Alan R. Needle, Robert J. Kowalsky Title: CAN THE OPENCAP MARKERLESS MOTION CAPTURE FRAMEWORK DETECT LOWER EXTREMITY KINEMATIC CHANGES DURING A FATIGUING RUN?	PC6
Joe Rebilas, Sustainable Technology Graduate Student - Masters Faculty Mentor: Chris Tolbert, Sustainable Technology and the Built Environment Co-Author(s): None Title: CASE STUDY OF A COST-EFFECTIVE SUSTAINABLE TRANSPORTATION SOLUTION: A STEP-BY-STEP MANUAL FOR THE ELECTRIC CONVERSION OF A 1988 FORD RANGER	PC7

Caleb Blackburn, Geography Graduate Student - Masters Faculty Mentor: Maggie Sugg, Geography and Planning Co-Author(s): Sophie Ryan Title: Spatial Disparities in Disaster Recovery: Assessing Flood Risk, Resilience, and Federal Aid Distribution in Western North Carolina After Hurricane Helene	PC8
François Desautels, Biology Graduate Student - Masters Faculty Mentor: Andrew Bellemer, Biology Co-Author(s): Dr. Megen Culpepper Title: ANTICONVULSANT PROPERTIES OF LONG POLYUNSATURATED FATTY ACIDS IN DROSOPHILA MELANOGASTER SEIZURE MODEL	PC9
Chris Lucero, Geography Graduate Student - Masters Faculty Mentor: Derek Martin, Geography and Planning Co-Author(s): Forest Pearson Title: INVESTIGATING THE TEMPORAL NATURE OF OROGRAPHIC INFLUENCES ON PRECIPITATION INTENSIFICATION DURING HURRICANE HELENE IN THE SOUTHERN APPALACHIAN MOUNTAINS.	PC10
Underwardunte Student Bester Competition Finalista	Poster Number
Undergraduate Student Poster Competition Finalists	
Ian Berry, Geography Undergraduate Student Faculty Mentor: Dennis Guignet, Economics Co-Author(s): N/A Title: HEALTH DISPARITIES AND PROXIMITY TO RMP FACILITIES: INVESTIGATING THE LINK BETWEEN INDUSTRIAL HAZARDS AND COMMUNITY HEALTH OUTCOMES	PC11
Lauren Fleeman, Environmental Science Undergraduate Student Faculty Mentor: William Anderson, Geological and Environmental Sciences Co-Author(s): N/A Title: BASEFLOW SOURCES IN A MOUNTAIN HEADWATER STREAM BASED ON PASTA MODELING OF AIR AND STREAM TEMPERATURES	PC12
Addison Pollock, Biology Undergraduate Student Faculty Mentor: Darren Seals, Biology Co-Author(s): Hannah Wolf, Maryam Ahmed Title: THE EFFECT OF VSV INFECTION ON PODOSOME ACTIVITY IN M1 AND M2 THP-1 MACROPHAGES	PC13
Leiana Santoro, Geology Undergraduate Student Faculty Mentor: Andrew Heckert, Geological and Environmental Sciences Co-Author(s): N/A Title: Dissolving diagenetic selenite from microvertebrate concentrate: An exploration of diverse techniques	PC14

Amanda Bruckstein, Nutrition Undergraduate Student Faculty Mentor: Caroline Smith, Public Health and Exercise Science Co-Author(s): N/A Title: THE EFFECTS OF HYPERHYDRATION AND MENSTRUAL CYCLE PHASE ON EXERCISE PERFORMANCE IN AEROBICALLY TRAINED WOMEN	PC15
Ian Daniel, Geography Undergraduate Student Faculty Mentor: William (Hui) Wang, Geography and Planning Co-Author(s): Joshua McLellan Title: Observing Western North Carolina Well Water Quality Post Flood-Event	PC16
Justin Gilbert, Public Health Undergraduate Student Faculty Mentor: Martie Thompson, Public Health and Exercise Science Co-Author(s): Sophie Ryan (potentially) Title: COVID-19 SCHOOL CLOSURES IN NORTH CAROLINA AND THE EFFECT ON ADOLESCENT MENTAL HEALTH AND EMERGENCY DEPARTMENT VISITS.	PC17
Quinn Keefer, Geography Undergraduate Student Faculty Mentor: Maggie Sugg, Geography and Planning Co-Author(s): Caleb Blackburn Title: SPATIAL CLUSTERING OF GUN VIOLENCE DURING HEATWAVES IN THE UNITED STATES (2015–2023): A PURELY SPATIAL BERNOULLI ANALYSIS	PC18
Raven Lester, Biology Undergraduate Student Faculty Mentor: Ashley Adams, Biology Co-Author(s): Rylee Strassner Title: AN ASSESSMENT OF FUNGAL DIVERSITY IN SOUTHERN APPALACHIAN COARSE WOODY DEBRIS	PC19
Tucker Terrell, Geology Undergraduate Student Faculty Mentor: Ellen Cowan, Geological and Environmental Sciences Co-Author(s): Keith Seramur Title: RESTORING SOUTHERN HISTORY THROUGH GROUND-PENETRATING RADAR: REVEALING THE LOST BURIAL GROUND OF ENSLAVED ANCESTORS AT FORT DEFIANCE	PC20

Morning Session Poster Presentations 9:00-10:30am Parkway Ballroom

	Poster Number
Presenter	
Jessica Frazier, Biology Undergraduate Student Faculty Mentor: Ashley Adams, Biology Co-Author(s): Mia Dziwanowski, Hei-Young Kim, Jeremy Ferrell Title: AN EVALUATION OF THE IMPACT OF ORGANIC AMENDMENTS ON CROP GROWTH AND NUTRIENT CONCENTRATION	21
Zoe Horack, Biology Undergraduate Student Faculty Mentor: Shea Tuberty, Biology Co-Author(s): Spencer Bechtol, Zachary Abbott, Alek Brown, Joe Johnson, George Santucci Title: REVIVING RIVERS: CAN LIFE BE RECOVERED THROUGH STREAM RESTORATION?	22
Maggie Pipkin, Biology Graduate Student - Masters Faculty Mentor: Shea Tuberty, Biology Co-Author(s): Aleisha Whipple, Liyah Moser, Duck Duckworth, Sherri White-Williamson, Carol Babyak Title: THE CUMULATIVE IMPACT OF ENVIRONMENTAL POLLUTANTS ON SAMPSON COUNTY WELL WATER	23
Anderson Payne, Biology Graduate Student - Masters Faculty Mentor: Ashley Adams, Biology Co-Author(s): Jeb Barrett Title: EFFECTS OF BIOCHAR AMENDMENTS ON NEMATODE COMMUNITY STRUCTURE	24
Ava Clark, Biology Undergraduate Student Faculty Mentor: Andrew Bellemer, Biology Co-Author(s): N/A Title: THE ROLE OF PHOSPHATIDYLCHOLINE LYSOPHOSPHOLIPASE, SWISS CHEESE, IN NOCICEPTION	25
Addisyn Keen, Biology Undergraduate Student Faculty Mentor: Andrew Bellemer, Biology Co-Author(s): N/A Title: Hormonal Modulation of Nociception: The Influence of Ecdysone in Drosophila	26
Hannah Orton, Biology Graduate Student - Masters Faculty Mentor: Andrew Bellemer, Biology Co-Author(s): N/A Title: Neurological Dysfunction Genes related to Seizure Phenotypes in Parabss1	27
Umamah Quadri, Biology Undergraduate Student Faculty Mentor: Andrew Bellemer, Biology Co-Author(s): N/A	28

Title: DIET MODIFICATIONS USED AS TREATMENT FOR EPILEPSY	
Maxwell Ramey, Biology Undergraduate Student Faculty Mentor: Jon Davenport, Biology Co-Author(s): Jon Davenport Title: Diet of three co-occurring large Plethodons in western North Carolina	29
Jacob Clontz, Biology Undergraduate Student Faculty Mentor: Mark Venable, Biology Co-Author(s): N/A Title: PROTECTING MAMMALIAN CELLS FROM PIT VIPER VENOM USING A NATURAL LIPID INHIBITOR	30
Kennedi Ratcliffe, Economics Undergraduate Student Faculty Mentor: Dr. Dennis Guignet, Economics Co-Author(s): Dr. Santosh Nandi, Department of Management, nandis1@appstate.edu Title: ASSESSING THE EFFECT OF HURRICANES ON HOUSING MARKETS: A STUDY OF NORTH CAROLINA AND VIRGINIA COASTAL COUNTIES	31
Sofie Van Moorleghem, Nutrition Graduate Student - Masters Faculty Mentor: Manan Roy, Nutrition and Health Care Management Co-Author(s): Alisha Farris Ph.D., RDN, and Danielle Nunnery Ph.D., RDN. Title: CLIMATE CHANGE AND NUTRITION OUTCOMES - A LITERATURE REVIEW	32
Samuel Svetik, Nutrition Graduate Student - Masters Faculty Mentor: Ayron Walker, Nutrition and Health Care Management Co-Author(s): Danielle Nunnery, Katie Wolsiefer Title: EXPLORING FACULTIES' INPUT AND FEEDBACK ON AN EDUCATIONAL SIMULATION ON WEIGHT BIAS	33
Carolyn Gura, Exercise Science Graduate Student - Masters Faculty Mentor: Rebecca Battista, Public Health and Exercise Science Co-Author(s): Brooke C. Towner, Stella Cybulski, J. Joy James Title: SCIENCE IN MOTION: EXPLORING WAYS TO INCREASE CHILDRENS PHYSICAL ACTIVITY DURING THE SCHOOL DAY	34
Mabry Watson, Exercise Science Graduate Student - Masters Faculty Mentor: Alan Needle, Public Health and Exercise Science Co-Author(s): Jared Skinner Jennifer Howard Title: NON-INVASIVE BRAIN STIMULATION OF THE MOTOR CORTEX ON HOP PERFORMANCE IN INDIVIDUALS WITH ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION	35
Liam Brady, Exercise Science Undergraduate Student Faculty Mentor: Matthew Rogatzki, Public Health and Exercise Science Co-Author(s): N/A Title: SWEAT LACTATE AS A MARKER OF EXERCISE INTENSITY	36

Colby Bierwirth, Geology Undergraduate Student Faculty Mentor: Cole Edwards, Geological and Environmental Sciences Co-Author(s): N/A Title: LOCATION MATTERS, OR DOES IT? TESTING STABLE CARBON AND OXYGEN ISOTOPIC VARIABILITY FROM ORDOVICIAN CARBONATE LITHOLOGIES: IMPLICATIONS FOR DIAGENETIC OVERPRINTS OF PALEOENVIRONMENTAL RECONSTRUCTIONS	37
Jackson Leatherman, Geology Undergraduate Student Faculty Mentor: Cole Edwards, Geological and Environmental Sciences Co-Author(s): N/A Title: STABLECARBONISOTOPE (δ13CCARB AND δ13CORG) EVIDENCE OF THE TOARCIAN OCEAN ANOXIC EVENT FROM CENTRAL ITALY: EVIDENCE FOR A GLOBALLY MIXED TETHYS SEA.	38
Sophia Choiniere, Geology Undergraduate Student Faculty Mentor: Andrew Heckert, Geological and Environmental Sciences Co-Author(s): N/A Title: LIFE RECONSTRUCTION OF THE EARLY CRETACEOUS DROMAEOSAUR MICRORAPTOR GUI, THE SMALL THIEF	39

Morning Session Poster Presentations 10:40am-12:00pm Parkway Ballroom

Avery Hodgson, Biology Undergraduate Student Faculty Mentor: Rachel Bleich, Biology Co-Author(s): Dr. Kevin Zwetsloot, Dr. Chequita Brooks, Oluwatobi Azeez Title: QUANTIFICATIONS OF CHANGES IN SHORT-CHAIN FATTY ACIDS DUE TO EXERCISE IN OLD AND YOUNG MICE	41
Kiara Neilsen, Biology Undergraduate Student Faculty Mentor: Rachel Bleich, Biology Co-Author(s): Ally Lawing Title: BACTERIAL INTERACTIONS OF A CALORICALLY RESTRICTED MICROBIOME	42
Marcus Planck, Biology Undergraduate Student Faculty Mentor: Cara Fiore, Biology Co-Author(s): N/A Title: ECOLOGY OF FRESHWATER SPONGES IN WESTERN NORTH CAROLINA	43
Tanishka Dass, Chemistry Undergraduate Student Faculty Mentor: Michael Reddish, Chemistry and Fermentation Sciences Co-Author(s): Amy Brown Title: The Stabilization of Membrane Scaffold Proteins for Lipid Nanodisc Formation	44
Heiden Kristoffersen, Chemistry Undergraduate Student Faculty Mentor: Jefferson Bates, Chemistry and Fermentation Sciences Co-Author(s): Jack N. McKeon, Gary L. Guillet Title: ELECTRONIC STRUCTURE STUDIES OF A REDUCED TRI-FERROUS EXTENDED METAL ATOM CHAIN COMPLEX	45

Emily Willman, Environmental Science Undergraduate Student Faculty Mentor: Robert Swarthout, Chemistry and Fermentation Sciences Co-Author(s): Harlie Hodge Title: QUANTIFYING BIODEGRADATION RATES OF DILUTED BITUMEN FROM THE 2010 KALAMAZOO OIL SPILL	46
Benjamin Goodridge, Environmental Science Undergraduate Student Faculty Mentor: Sarah Carmichael, Geological and Environmental Sciences Co-Author(s): Dr. Sarah Carmichael, Dr. William Anderson Title: HOW DOES SUBMARINE GROUNDWATER DISCHARGE AFFECT PALEOTEMPERATURE CALCULATIONS? A CASE STUDY FROM DEVONIAN ISLAND ARCS IN THE CENTRAL ASIAN OROGENIC BELT.	47
Zsigmond Majtenyi, Environmental Science Undergraduate Student Faculty Mentor: William Anderson, Geological and Environmental Sciences Co-Author(s): Nicholas Fiori Title: Impacts of Storm Overwash and Sea Level Rise on Saltwater Intrustion of Barrier Island Freshwater Aquifers	48
Jack Dickson, Geography Undergraduate Student Faculty Mentor: Bhuwan Thapa, Geography and Planning Co-Author(s): Bhuwan Thapa, Geumjin Han, Miyoun Kwon, Yoonjin Ro Title: Spatiotemporal variations in surface temperature and built environment: Case of Seoul, South Korea	49
Eden Vigus, Geography Undergraduate Student Faculty Mentor: Bhuwan Thapa, Geography and Planning Co-Author(s): Jackson Kinney, Bhuwan Thapa, Erik Rabinowitz, Ram Poudel, Jennifer Schroeder Tyson, Brian Raichle Title: ACTIVE COMMUTER EXPOSURE TO AIR POLLUTION IN RURAL APPALACHIAN COLLEGE COMMUNITY	50
Bella Vanden Boom, Geography Graduate Student - Masters Faculty Mentor: Maggie Sugg, Geography and Planning Co-Author(s): Caroline Fehlman Title: IDENTIFYING MATERNAL HEALTHCARE DESERTS: A CENSUS-TRACT LEVEL SPATIAL ANALYSIS	51
Elvis Geissler, Geology Undergraduate Student Faculty Mentor: Andrew Heckert, Geological and Environmental Sciences Co-Author(s): Caeden Carter, Kathleen Plesh, Joshua Crouch Title: PRODUCING PORTABLE PALEONTOLOGICAL EXHIBITS TO ENHANCE EDUCATIONAL ENGAGEMENT	52
Madison Schwarte, Geology Undergraduate Student Faculty Mentor: Marta Toran, Geological and Environmental Sciences Co-Author(s): N/A Title: MATERIALS FOR YOUTH EDUCATION OUTREACH	53
Jayne Hinson, Physics Undergraduate Student Faculty Mentor: Jefferson Bates, Chemistry and Fermentation Sciences Co-Author(s): N/A Title: COMPLEX EXCITATION ENERGIES FROM A FIRST-ORDER TRUNCATION OF	54

THE IRREDUCIBLE RESPONSE FUNCTION	
Clara Lopez, Physics Undergraduate Student Faculty Mentor: Brooke Hester, Physics and Astronomy Co-Author(s): Brooke Hester Title: STRATEGIES FOR OPTIMIZING RAMAN SPECTRA IN A LASER TWEEZER RAMAN SPECTROSCOPY (LTRS) SYSTEM:	55
Alan Schneider, Physics Undergraduate Student Faculty Mentor: Brooke Hester, Physics and Astronomy Co-Author(s): Asher Rockriver, Clara Lopez Title: Implementation approaches for automating and optimizing optical tweezers in a Laser Tweezer Raman Spectroscopy system	56
Chloe Thompson, Physics Undergraduate Student Faculty Mentor: Brooke Hester, Physics and Astronomy Co-Author(s): N/A Title: IMPLEMENTATION OF A SPATIAL LIGHT MODULATOR FOR PRODUCING AN ARBITRARY INTENSITY DISTRIBUTION LASER BEAM	57
Cade Tischer, Physics Undergraduate Student Faculty Mentor: James Sherman, Physics and Astronomy Co-Author(s): Jonathan Linderich Title: OPTIMIZING AEROSOL HUMIDIFICATION FOR IMPROVED CLIMATE MODELING AND FIELD MEASUREMENTS	58
Michaela Sutherland, Psychology Undergraduate Student Faculty Mentor: Tim Huelsman, Psychology Co-Author(s): Cassidy Zekas, Leah Uteg-Winkelman, Camila Yamaleyeva, Niasia Jones, Hunter Bass, Jess Doll, Kristl Davison Title: SCALING DEI: EVALUATING CHANGE PREPAREDNESS IN ORGANIZATIONS	59
Jaylin Van Noy, Psychology Undergraduate Student Faculty Mentor: Yalcin Acikgoz, Psychology Co-Author(s): Anastasia Dubinsky, Reagan Kaeding, Alex Hernandez Title: PROFESSIONALISM	60
Elizabeth Arnold, Psychology Undergraduate Student Faculty Mentor: Shawn Bergman, Psychology Co-Author(s): Dacey Ramroth Title: SAFETY REPORTING BETWEEN EMPLOYEES AND CONTRACTORS	61
Mollie Bollinger, School Psychology Graduate Student - Masters Faculty Mentor: Sandra Gagnon, Psychology Co-Author(s): Mary Margaret Watson, India Horn, Emie Choquette, Kellie Honeycutt, Katherine Smith, Jack Settlemyer, Madeline Messitt, Gracie Leophard Title: COLLEGE VICTIMS OF HIGH SCHOOL BULLYING: DOES SOCIAL SUPPORT MATTER?	62

Mary Margaret Watson, School Psychology Graduate Student - Masters Faculty Mentor: Sandra Gagnon, Psychology Co-Author(s): Mary Margaret Watson, Sandra Gagnon, Mollie Bollinger, Emie Choquette, India Horn, Kellie Honeycutt, Jack Settlemyer, Katherine Smith, Madeline Messitt, Gracie Leophard Title: College Victims of High School Bullying: Emotion Regulation May Help	63
Sophia Chapdelaine, School Psychology Graduate Student - Masters Faculty Mentor: Crystal Taylor, Psychology Co-Author(s): Gracie Streeval and Jamie Yarbrough Title: BOOSTING SOCIAL-EMOTIONAL SKILLS: SECOND STEP'S IMPACT ON ELEMENTARY CHILDREN	64
Sarah Louise Wood, Sociology Undergraduate Student Faculty Mentor: Ellen Lamont, Sociology Co-Author(s): N/A Title: CLASSED DATING PRACTICES: HOW COLLEGE STUDENTS USE SOCIAL CLASS TO NAVIGATE THEIR ROMANTIC DECISIONS	65
Emma Getz, Public Health Undergraduate Student Faculty Mentor: Richard Christiana, Public Health and Exercise Science Co-Author(s): N/A Title: TICK-BORNE DISEASE PREVENTION IN LONG-DISTANCE APPALACHIAN TRAIL HIKERS: A HEALTH BELIEF MODEL APPROACH	66
Caroline Halliday, Recreation Management Undergraduate Student Faculty Mentor: Mandy Harrison, Recreation Management and Physical Education Co-Author(s): N/A Title: EXPLORING THE CONNECTION BETWEEN TRANSFORMATIVE EDUCATIONAL EXPERIENCES AND RESILIENCE	67
Isabel Schniper, Recreation Management Undergraduate Student Faculty Mentor: Erik Rabinowitz, Recreation Management and Physical Education Co-Author(s): n/a Title: THE CORRELATION OF RECREATION AND REDUCING OFFENDING IN NORTH CAROLINA.	68
Madi Heater, Recreation Management Undergraduate Student Faculty Mentor: Erik Rabinowitz, Recreation Management and Physical Education Co-Author(s): N/A Title: ECONOMIC AND ENVIRONMENTAL IMPACTS OF HURRICANE HELENE ON THE BLUE RIDGE PARKWAY	69
Gabrielle Engstrand, Psychology Undergraduate Student Faculty Mentor: Kym Fasczewski, Public Health and Exercise Science Co-Author(s): Samantha DuBois Title: SUSTAINING PHYSICAL ACTIVITY IN MULTIPLE SCLEROSIS: THE ROLE OF MOTIVATION, COGNITION FUNCTION, AND CHARITY EVENT PARTICIPATION	70

Patton Ansley, Exercise Science Undergraduate Student Faculty Mentor: Jared Skinner, Public Health and Exercise Science Co-Author(s): Breanna Gibson, Scott Collier, PhD. Title: SLEEP DISTURBANCES IN PARKINSON'S DISEASE: THE IMPACT OF INSUFFICIENT SLEEP TIME ON SLEEP EFFICIENCY AND DEEP SLEEP STAGES.	71
Katie Rhoades, Nursing Undergraduate Student Faculty Mentor: Tammy Haley, Nursing Co-Author(s): N/A Title: MEANING MAKING IN MAYHEM: THE IMPACT OF PASTORAL CARE ON INPATIENT PSYCHIATRIC PATIENTS	72
Emily Bowles, Nutrition Graduate Student - Masters Faculty Mentor: Alisha Farris, Nutrition and Health Care Management Co-Author(s): Brook E. Harmon PhD RDN FAND, Heather Schier PhD Title: EVALUATING THE IMPACT OF A CULTURAL FOODS COURSE THROUGH SEMI-STRUCTURED INTERVIEWS	73

	Poster Number
Poster Information	
Eric Bravver, Biology Undergraduate Student Faculty Mentor: Brooke Christian, Chemistry and Fermentation Sciences Co-Author(s): N/A Title: STABILIZATION OF ALCOHOL DEHYDROGENASE BY TARDIGRADE-SPECIFIC CYSTOSOLIC ABUNDANT HEAT-SOLUBLE PROTEIN Q	81
Grace Alvanos, Biology Undergraduate Student Faculty Mentor: Brooke Hester, Physics and Astronomy Co-Author(s): Darren Seals Title: INVESTIGATING ELASTIC MODULUS CHANGES IN SRC527-EXPRESSING NIH 3T3 FIBROBLASTS AT DIFFERENT STAGES OF INVADOPODIA FORMATION	82
Isabela Rengifo Ramirez, Biology Undergraduate Student Faculty Mentor: Michael Reddish, Chemistry and Fermentation Sciences Co-Author(s): N/A Title: STABILITY OF A HUMAN ADRENODOXIN - CYTOCHROME P450 27A1 FUSION CONSTRUCT THROUGHOUT EXPRESSION AND PURIFICATION IN ESCHERICHIA COLI	83
Spencer Bechtol, Biology Graduate Student - Masters Faculty Mentor: Shea Tuberty, Biology Co-Author(s): Matt Green Title: PRE-POST ASSESSMENT OF HURRICANE HELENE IMPACTS ON WESTERN NORTH CAROLINA STREAM: DOES A 1000 YEAR FLOOD IMPACT AQUATIC MACROINVERTEBRATE ASSEMBLAGE DIVERSITY?	84
Audi Holloway, Biology Undergraduate Student Faculty Mentor: Jennifer Geib, Biology Co-Author(s): Caitlin McClear Title: DETECTION OF ISRAELI ACUTE PARALYSIS VIRUS IN HONEYBEES IN WESTERN NORTH CAROLINA	85
Michael Lowe, Chemistry Undergraduate Student Faculty Mentor: Jefferson Bates, Chemistry and Fermentation Sciences Co-Author(s): Jefferson E. Bates Title: Magnetic coupling constants of bimetallic complexes through the lens of the random phase approximation	86
Seth Brahney, Chemistry Undergraduate Student Faculty Mentor: Michael Reddish, Chemistry and Fermentation Sciences Co-Author(s): N/A Title: Development of LC-MS Methods for Measuring Cholesterol Oxidation by Human Cytochrome P450 27A1	87

Sarah Tucker, Chemistry Undergraduate Student Faculty Mentor: Michael Reddish, Chemistry and Fermentation Sciences Co-Author(s): N/A Title: APPLICATION OF PROFLUORESCENT SUBSTRATES TO CYTOCHROME P450 27C1	88
Matthew Manbodhe, Environmental Science Undergraduate Student Faculty Mentor: William Anderson, Geological and Environmental Sciences Co-Author(s): N/A Title: ESTIMATING AQUIFER PARAMETERS OF A DISCRETE FRACTURE USING EARTH TIDES	89
Adam Chastain, Exercise Science Graduate Student - Masters Faculty Mentor: Kimberly Fasczewski, My Mentor's Department is not listed or I am unsure what is their Department Co-Author(s): Chris Wing, Abi Cameron, Andrey Sanko, Kelli Okonek, Kimberly Fasczewski Title: Riding the Flow: Investigating Flow State Experiences in Male and Female Mountain Biking, River Sport, and Snow Sport Athletes	90
Christian Diaz, Exercise Science Undergraduate Student Faculty Mentor: Kym Fasczewski, Public Health and Exercise Science Co-Author(s): Jessica Schmid, Paige Bramlett, Chris Wing, Kimberly Fasczewski Title: Social Support and its Effect on Athlete Return to Play	91
Daliana Estevez, Exercise Science Undergraduate Student Faculty Mentor: Dr. Jared Skinner, Public Health and Exercise Science Co-Author(s): Dr. Robert Kowalsky and Ansley Patton Title: COMPARING GAIT ACTIVITY TOOLS TO ASSESS FALL RISK IN PARKINSON'S DISEASE	92
Lauriel Ramirez-Tello, Exercise Science Undergraduate Student Faculty Mentor: Jared Skinner, Public Health and Exercise Science Co-Author(s): N/A Title: THE WEIGHT OF PERFORMANCE: GAIT AND BALANCE VARIABILITY IN COLLEGIATE MARCHING BAND PERFORMERS UNDER INSTRUMENT LOAD	93
James Bartlinski, Geology Undergraduate Student Faculty Mentor: Andrew Heckert, Geological and Environmental Sciences Co-Author(s): N/A Title: AN INVESTIGATION OF ENAMEL DEGRADATION IN TEETH OF THE HOMESTEAD SITE MICROVERTEBRATE ASSEMBLAGES AT THE GARITA GREEK FORMATION, (LATE TRIASSIC: NORIAN) NEW MEXICO	94
Joshua Crouch, Geology Undergraduate Student Faculty Mentor: Andrew Heckert, Geological and Environmental Sciences Co-Author(s): Ikaika Turner Title: A VERTEBRATE ASSEMBLADGE FROM THE LATE CRETACEOUS (MAASTRICHTIAN) PEEDEE FORMATION OF GREENVILLE, NORTH CAROLINA	95

Faculty Mentor: Jamie Levine, Geological and Environmental Sciences 97 Title: Deformation in Quartz and Calcite in Greenschist-Facies Rocks of the Alpi Apuane, Central Italy. 97 Alana Olson, Psychology Undergraduate Student 97 Faculty Mentor: Shawn Bergman, Psychology 97 Co-Author(s): Tony Grebentsov, Lauryn Womble, Brenna McNamara, Claire Parson, Abigail Branco 98 Title: ASSESSING THE UTILITY OF A CAREER EXPLORATION PLATFORM FOR 98 PSYCHOLOGY STUDENTS 98 Drew Snipe, Psychology Undergraduate Student 98 Faculty Mentor: Shawn & Tim Bergman & Ludwig, Psychology 98 Or-Author(s): Jacob Leslie, Firzana Syazania, Mariana Solanilla, Nick Rupert, Shawn 98 Bergman, & Tim Ludwig 99 Title: Examining the Relationship between Risk Taking, Maximizing, and Anxiety 99 Caroline Schnitzlein, Psychology Undergraduate Student 99 Faculty Mentor: Andrew Smith, Psychology 00 Co-Author(s): DeVaughn Bumett-Garrett, Olivia Hamilton, Abigail Branco, and Andrew Smith 100 Gracie Streeval, School Psychology Graduate Student - Masters 101 Faculty Mentor: Crystal Taylor, Psychology 00 00 Gracie Streeval, School Psychology Graduate Student - Masters 102		
Faculty Mentor: Shawn Bergman, Psychology Co-Author(s): Tony Grebentsov, Lauryn Womble, Brenna McNamara, Claire Parson, Abigail Branco 98 Title: ASSESSING THE UTILITY OF A CAREER EXPLORATION PLATFORM FOR PSYCHOLOGY STUDENTS 98 Drew Snipe, Psychology Undergraduate Student 98 Faculty Mentor: Shawn & Tim Bergman & Ludwig, Psychology 99 Or-Author(s): Jacob Leslie, Firzana Syazania, Mariana Solanilla, Nick Rupert, Shawn Bergman, & Tim Ludwig 99 Title: YOU'RE DOING IT WRONG! SAFETY REPORTING BETWEEN EMPLOYEES AND 99 NDEPENDENT CONTRACTORS 99 Avery Blackwell, Psychology Undergraduate Student 99 Faculty Mentor: Andrew Smith, Psychology 100 Co-Author(s): IV/A 100 Faculty Mentor: Andrew Smith, Psychology 100 Co-Author(s): DeVaughn Burnett-Garrett, Olivia Hamilton, Abigail Branco, and Andrew Smith 101 Title: STEREOTYPES AS ENERGY-SAVERS: A REPLICATION AND EXTENSION OF 104 MACRAE ET AL. (1994) 101 Gracie Streeval, School Psychology Graduate Student - Masters 101 Faculty Mentor: Crystal Taylor, Psychology 102 Co-Author(s): Gracie Streeval, Anhminh Nguyen, & Nicole Iturbide 102 Faculty Mentor: Jamie Yarbrough, Psychology 102	Co-Author(s): Gabriele Casale	96
Faculty Mentor: Shawn & Tim Bergman & Ludwig, Psychology Co-Author(s): Jacob Leslie, Firzana Syazania, Mariana Solanilla, Nick Rupert, Shawn Bergman, & Tim Ludwig Title: YOU'RE DOING IT WRONG! SAFETY REPORTING BETWEEN EMPLOYEES AND INDEPENDENT CONTRACTORS99Avery Blackwell, Psychology Undergraduate Student Faculty Mentor: Andrew Smith, Psychology Co-Author(s): N/A Title: Schnitzlein, Psychology Undergraduate Student Faculty Mentor: Andrew Smith, Psychology Co-Author(s): N/A99Gracie Schnitzlein, Psychology Undergraduate Student Faculty Mentor: Andrew Smith, Psychology Co-Author(s): DeVaughn Burnett-Garrett, Olivia Hamilton, Abigail Branco, and Andrew Smith Title: STEREOTYPES AS ENERGY-SAVERS: A REPLICATION AND EXTENSION OF MACRAE ET AL. (1994)100Gracie Streeval, School Psychology Graduate Student - Masters Faculty Mentor: Crystal Taylor, Psychology Co-Author(s): Sophia Chapdelaine Title: EMPOWERING EDUCATORS: CONSULTATION TO IMPROVE CLASSROOM MANAGEMENT AND REDUCE STRESS102Emily Reigard, School Psychology Graduate Student - Masters Faculty Mentor: Jamie Yarbrough, Psychology Co-Author(s): Gracie Streeval, Anhminh Nguyen, & Nicole Iturbide Title: IMPACT OF FACULTY RACE ON STUDENT REFERRAL AND SUSPENSION RATES103Lauren Perrone, Sociology Undergraduate Student - Masters Faculty Mentor: Dr. Ellen Lamont, Sociology Co-Author(s): N/A103Lauren Perrone, Sociology Undergraduate Student - Masters Faculty Mentor: Dr. Ellen Lamont, Sociology Co-Author(s): N/A104Michael Ayiku, Sustainable Technology Graduate Student - Masters Faculty Mentor: Arceou Sadoughi, Sustainable Technology and the Built Environment Co-Author(s): N/A104	Abigail Branco	97
Faculty Mentor: Andrew Smith, Psychology Co-Author(s): N/A Title: Examining the Relationship between Risk Taking, Maximizing, and Anxiety100Caroline Schnitzlein, Psychology Undergraduate Student Faculty Mentor: Andrew Smith, Psychology Co-Author(s): DeVaughn Burnett-Garrett, Olivia Hamilton, Abigail Branco, and Andrew Smith Title: STEREOTYPES AS ENERGY-SAVERS: A REPLICATION AND EXTENSION OF MACRAE ET AL. (1994)101Gracie Streeval, School Psychology Graduate Student - Masters Faculty Mentor: Crystal Taylor, Psychology Co-Author(s): Sophia Chapdelaine Title: EMPOWERING EDUCATORS: CONSULTATION TO IMPROVE CLASSROOM MANAGEMENT AND REDUCE STRESS102Emily Reigard, School Psychology Graduate Student - Masters Faculty Mentor: Jamie Yarbrough, Psychology Co-Author(s): Gracie Streeval, Anhminh Nguyen, & Nicole Iturbide Title: IMPACT OF FACULTY RACE ON STUDENT REFERRAL AND SUSPENSION RATES103Lauren Perrone, Sociology Undergraduate Student for the Student's Nicole Iturbide Title: MPACT OF FACULTY RACE ON STUDENT REFERRAL AND SUSPENSION RATES103Lauren Perrone, Sociology Undergraduate Student Faculty Mentor: Dr. Ellen Lamont, Sociology Co-Author(s): N/A104Michael Ayiku, Sustainable Technology Graduate Student - Masters Faculty Mentor: Arezou Sadoughi, Sustainable Technology and the Built Environment Co-Author(s): N/A104	Co-Author(s): Jacob Leslie, Firzana Syazania, Mariana Solanilla, Nick Rupert, Shawn Bergman, & Tim Ludwig Title: YOU'RE DOING IT WRONG! SAFETY REPORTING BETWEEN EMPLOYEES AND	98
Faculty Mentor: Andrew Smith, Psychology Co-Author(s): DeVaughn Burnett-Garrett, Olivia Hamilton, Abigail Branco, and Andrew Smith Title: STEREOTYPES AS ENERGY-SAVERS: A REPLICATION AND EXTENSION OF MACRAE ET AL. (1994)101Gracie Streeval, School Psychology Graduate Student - Masters Faculty Mentor: Crystal Taylor, Psychology Co-Author(s): Sophia Chapdelaine 	Co-Author(s): N/A	99
Faculty Mentor: Crystal Taylor, Psychology Co-Author(s): Sophia Chapdelaine Title: EMPOWERING EDUCATORS: CONSULTATION TO IMPROVE CLASSROOM MANAGEMENT AND REDUCE STRESS102Emily Reigard, School Psychology Graduate Student - Masters Faculty Mentor: Jamie Yarbrough, Psychology Co-Author(s): Gracie Streeval, Anhminh Nguyen, & Nicole Iturbide Title: IMPACT OF FACULTY RACE ON STUDENT REFERRAL AND SUSPENSION RATES103Lauren Perrone, Sociology Undergraduate Student Faculty Mentor: Dr. Ellen Lamont, Sociology Co-Author(s): N/A Title: "Bitch Better Pay for It": Fathers' Claims of Alienation in Family Court104Michael Ayiku, Sustainable Technology Graduate Student - Masters Faculty Mentor: Arezou Sadoughi, Sustainable Technology and the Built Environment Co-Author(s): N/A104	Caroline Schnitzlein, Psychology Undergraduate Student Faculty Mentor: Andrew Smith, Psychology Co-Author(s): DeVaughn Burnett-Garrett, Olivia Hamilton, Abigail Branco, and Andrew Smith Title: STEREOTYPES AS ENERGY-SAVERS: A REPLICATION AND EXTENSION OF MACRAE ET AL. (1994)	100
Faculty Mentor: Jamie Yarbrough, Psychology Co-Author(s): Gracie Streeval, Anhminh Nguyen, & Nicole Iturbide Title: IMPACT OF FACULTY RACE ON STUDENT REFERRAL AND SUSPENSION RATES103Lauren Perrone, Sociology Undergraduate Student Faculty Mentor: Dr. Ellen Lamont, Sociology Co-Author(s): N/A103Title: "Bitch Better Pay for It": Fathers' Claims of Alienation in Family Court104Michael Ayiku, Sustainable Technology Graduate Student - Masters Faculty Mentor: Arezou Sadoughi, Sustainable Technology and the Built Environment Co-Author(s): N/A104	Title: EMPOWERING EDUCATORS: CONSULTATION TO IMPROVE CLASSROOM	101
Faculty Mentor: Dr. Ellen Lamont, Sociology Co-Author(s): N/A Co-Author(s): N/A Title: "Bitch Better Pay for It": Fathers' Claims of Alienation in Family Court Michael Ayiku, Sustainable Technology Graduate Student - Masters 104 Faculty Mentor: Arezou Sadoughi, Sustainable Technology and the Built Environment 104	Emily Reigard, School Psychology Graduate Student - Masters Faculty Mentor: Jamie Yarbrough, Psychology Co-Author(s): Gracie Streeval, Anhminh Nguyen, & Nicole Iturbide Title: IMPACT OF FACULTY RACE ON STUDENT REFERRAL AND SUSPENSION RATES	102
Faculty Mentor: Arezou Sadoughi, Sustainable Technology and the Built Environment Co-Author(s): N/A	Faculty Mentor: Dr. Ellen Lamont, Sociology Co-Author(s): N/A	103
	Michael Ayiku, Sustainable Technology Graduate Student - Masters Faculty Mentor: Arezou Sadoughi, Sustainable Technology and the Built Environment Co-Author(s): N/A Title: CARBON IMPACT OF MODULAR MASS TIMBER	104

Duncan Burns, Technology Graduate Student - Masters Faculty Mentor: Sohad Abu-elzait, Sustainable Technology and the Built Environment Co-Author(s): Bradley Del Vecchio Title: SOLAR-POWERED WATER PURIFICATION SYSTEM	105
Abigail Putnam, Nutrition Graduate Student - Masters Faculty Mentor: Melissa Gutschall, Nutrition and Health Care Management Co-Author(s): Susan Hedges, PhD, Sydeena Isaacs, PhD, RD, LDN Title: DIETARY PATTERNS OF YOUNG ADULTS WITH INTELLECTUAL DISABILITIES ANALYZED BY PHOTO-ASSISTED RECALL: TAILORING NUTRITION EDUCATION INTERVENTIONS	106
Ryan Musgrave, Nutrition Graduate Student - Masters Faculty Mentor: Brook Harmon, Nutrition and Health Care Management Co-Author(s): Nathan West, PhD; Adam Hege, PhD Title: CLERGY PERSPECTIVES ON DESIGNING A FAITH-BASED PHYSICAL ACTIVITY PROGRAM INFORMED BY THE SOCIO-ECOLOGICAL MODEL	107
Therese Kafant, Nutrition Graduate Student - Masters Faculty Mentor: Danielle Nunnery, Nutrition and Health Care Management Co-Author(s): Dr. Manan Roy, PhD Title: SOCIO-DEMOGRAPHICS, SEVERE MATERNAL MORBIDITY, & OBSTETRIC OUTCOMES RELATED TO HOSPITAL CLOSURES IN NORTH CAROLINA	108
Elyssa Wiggins, Nutrition and Foods Graduate Student - Masters Faculty Mentor: Sydeena Isaacs, Nutrition and Health Care Management Co-Author(s): Amanda Hege, Andrea Anderson Title: FARM TO EARLY CARE AND EDUCATION PILOT PROGRAM- WESTERN NORTH CAROLINA HIGH COUNTRY INTEREST SURVEY	109
Hunter Corman, Physics Graduate Student - Masters Faculty Mentor: Zach Russell, Physics and Astronomy Co-Author(s): N/A Title: AUTOMATIC PRINT AND RELEASE 3D PRINTING SYSTEM.	110
Emma Ingram, Physics Undergraduate Student Faculty Mentor: James Sherman, Physics and Astronomy Co-Author(s): Lifei Yin Title: INITIAL STUDIES OF CLOUD CONDENSATION NUCLEI FROM THE APPALAIR FACILITIES	111
Ian, Will Orrell, Allport, Physics Undergraduate Student Faculty Mentor: Christopher Thaxton, Physics and Astronomy Co-Author(s): Maggie Stevens, Jake Arnold, and Dominic Caraveo Title: MODELING THE EFFECTS OF SEAFLOOR OBJECT SHAPE, ORIENTATION, AND INSTANTANEOUS BURIAL DEPTH ON SCOUR AND BURIAL PROCESSES USING CFD	112
Sophie Hoffmann, Physics Undergraduate Student Faculty Mentor: Adam McKay, Physics and Astronomy Co-Author(s): N/A Title: MEASURING THE VOLATILE COMPOSITION OF 41P/TUTTLE–GIACOBINI–KRESÁK WITH NARROWBAND PHOTOMETRY DURING ITS	113

2017 PERIHELION PASSAGE	
Lily Pratt, Physics Undergraduate Student Faculty Mentor: Zach Russell, Physics and Astronomy Co-Author(s): Hunter Corman Title: VALIDATION OF COST-EFFECTIVE 3D PRINTED OPTOMECHANICAL COMPONENTS FOR PRECISION OPTICS	114
Ian Wharton Wharton, Physics Undergraduate Student Faculty Mentor: Zachary Russell, Physics and Astronomy Co-Author(s): Shaun Go Lily Pratt Hunter Corman Title: DEMOCRATIZING OPTOMECHANICS: CREATING AN OPEN SOURCE 3D PRINTED OPTOMECHANICAL ECOSYSTEM	115

Ethan Grant, Economics Undergraduate Student	116
Faculty Mentor: Ash Morgan, Economics	
Co-Author(s): Jeffrey Blackham, Nicolas Mishue, Parker Nevius, Riley Carroll, and Alex	
Pecoraro	
Title: ECONOMIC IMPACT OF BLUE RIDGE GUIDE ASSOCIATION	

Afternoon Session Poster Presentations 2:40pm - 4:00pm Parkway Ballroom

Avery Beck, Communication Sciences and Disorders Undergraduate Student Faculty Mentor: Wendy Olsen, Rehabilitation Sciences Co-Author(s): N/A Title: COUGH IN POMPE DISEASE: WHAT CAN WE PREDICT?	121
Nathan Gordon, Exercise Science Undergraduate Student Faculty Mentor: Jared Skinner, Public Health and Exercise Science Co-Author(s): N/A Title: STRENGTH AND STRIDE: INVESTIGATING THE RELATIONSHIP BETWEEN LOWER BODY STRENGTH AND SPATIOTEMPORAL GAIT PARAMETERS IN OLDER ADULTS WITH AND WITHOUT PARKINSON'S DISEASE	122
Abi Cameron, Exercise Science Undergraduate Student Faculty Mentor: Kimberly Fasczewski, Public Health and Exercise Science Co-Author(s): Chris Wing, Andrey Sanko, Kelli Okonek Title: FLOW UNDER PRESSURE: THE INFLUENCE OF RISK ON ADVENTURE SPORT ATHLETES	123
Mackenzie, Anna Knapp, Capannola, Exercise Science Undergraduate Student Faculty Mentor: Jared Skinner, Public Health and Exercise Science Co-Author(s): Ansley Patton Title: EXPLORING THE IMPACT OF BALANCE CONFIDENCE AND FREEZING OF GAIT ON SPATIOTEMPORAL GAIT PARAMETERS IN OLDER ADULTS WITH AND WITHOUT PARKINSON'S DISEASE	124

Kathleen Plesh, Geology Undergraduate Student Faculty Mentor: Andrew Heckert, Geological and Environmental Sciences Co-Author(s): Josef Stiegler Title: FILETS OF FISH: SEGMENTING COMPUTED TOMOGRAPHY (CT) SCANS TO DESCRIBE THE MORPHOLOGY OF RAY-FINNED FISH (ACTINOPTERYGII) FROM THE UPPER TRIASSIC (REVUELTIAN) SNYDER QUARRY OF THE PETRIFIED FOREST FORMATION IN NORTHERN NEW MEXICO	125
Lydia Fisher, Nutrition and Foods Graduate Student - Masters Faculty Mentor: Danielle Nunnery, Nutrition and Health Care Management Co-Author(s): Alisha Farris, PhD, Adam Hege, PhD, Toyin Babatunde, PhD, Elizabeth Wall-Bassett, PhD, Maureen Berner, PhD, Rebecca Hagedorn-Hatfield, PhD, Jessica Soldavini, PhD, Annie Wolf Title: A Multi-Campus Study of the Impact of Food Insecurity on North Carolina College Students	126
Ella Mayfield, Physics Undergraduate Student Faculty Mentor: Adam McKay, Physics and Astronomy Co-Author(s): Anita Cochran, Michael Kelley Title: EVALUATING POSSIBLE INFLUENCE OF SOLAR ACTIVITY ON OBSERVED [OI] EMISSION IN COMETARY COMAE	127
Halen McMorris, Physics Undergraduate Student Faculty Mentor: Elise Weaver, Physics and Astronomy Co-Author(s): n/a Title: OPTIMIZING NEURAL NETWORK UTILIZATION IN ASTRONOMICAL CONTEXTS: PREDICTING STAR CLUSTER AGE	128
Aydan Gibbs, Engineering Physics Graduate Student - Masters Faculty Mentor: James Sherman, Physics and Astronomy Co-Author(s): Ethan Parkhurst Title: INITIAL MEASUREMENTS OF ATMOSPHERIC AEROSOL SIZE DISTRIBUTIONS FOR TRAINING A MACHINE LEARNING MODEL TO PREDICT AEROSOL LIQUID WATER AND CLOUD CONDENSATION NUCLEI	129
Alex Huffman, Sustainable Development Undergraduate Student Faculty Mentor: Alexia Witcombe, Sustainable Development Co-Author(s): N/A Title: ADDRESSING SOURCES OF PHOSPHORUS IN PRODUCTS GEARED FOR THE GENERAL CONSUMER	130
Elizabeth Payne, Psychology Undergraduate Student Faculty Mentor: Lynn Siefferman, Biology Co-Author(s): N/A Title: THERE ARE NO PERFECT PARENTS: PERSONALITY AND PROVISIONING IN BREEDING TREE SWALLOWS	131
Hailey Church, Biology Undergraduate Student Faculty Mentor: Rachel Bleich, Biology Co-Author(s): Cooper Brown, Chequita Brooks, Suzanna Brauer, Rachel Bleich Title: THE MICROBES BEHIND THE MUCK: MICROBIAL COMMUNITIES EFFECTS ON GREENHOUSE GAS EMISSIONS IN SOUTHERN APPALACHIAN PONDS	132

Isabella deBlaquiere, Biology Undergraduate Student Faculty Mentor: Shea Tuberty, Biology Co-Author(s): Audi Holloway, Casper Roark, Daniel Orton, Dr. James Wilkes, Dr. Carol Babyak Title: CONCENTRATIONS OF TOXIC METALS IN HONEY BY LAND USE OVER TIME	133
Christopher Cafasso, Biology Undergraduate Student Faculty Mentor: Ashely Adams, Biology Co-Author(s): Mia Dziwanoski, Hei-Young Kim, Jeremy Ferrell Title: EFFECTS OF ORGANIC AMENDMENTS ON SOIL COMMUNITIES.	134
Morgan Gill, Biology Graduate Student - Masters Faculty Mentor: Ashley Adams, Biology Co-Author(s): N/A Title: PERSISTING IMPACTS OF COMPOST AMENDMENTS ON MICROBIAL DIVERSITY AND FUNCTIONS IN RANGELAND SOILS	135
Monica Webster, Biology Undergraduate Student Faculty Mentor: Jennifer Geib, Biology Co-Author(s): N/A Title: Bumble Bee Diversity in the Southeast: My Work as a Citizen Scientist for the 2024 Bumble Bee Atlas	136
Mallory Hagen, Biology Undergraduate Student Faculty Mentor: Lynn Siefferman, Biology Co-Author(s): Sarah Knutie Title: MANIPULATED INCUBATION TEMPERATURE ON NESTLING MATURITY IN EASTERN BLUEBIRDS (SIALIA SIALIS)	137
Caitlyn Weems, Biology Undergraduate Student Faculty Mentor: Jennifer Geib, Biology Co-Author(s): N/A Title: Evaluating the Efficacy of Artificial Domiciles for Bumble Bees Across Diverse Environments	138
Bryce Beatson, Biology Undergraduate Student Faculty Mentor: Mary Kinkel, Biology Co-Author(s): N/A Title: INVESTIGATING INTESTINAL GENE EXPRESSION PATTERNS AND RECEPTOR FUNCTION USING THE ZEBRAFISH MODEL	139
Ally Lawing, Biology Graduate Student - Masters Faculty Mentor: Rachel Bleich, Biology Co-Author(s): N/A Title: QUANTIFYING BIOFILM-RELATED EXPRESSION BETWEEN CROHN'S-ASSOCIATED AIEC AND ENTEROCOCCUS FAECALIS	140
Gabriela Gonzalez Caquias, Biology Undergraduate Student Faculty Mentor: Daniel Chi-Wei chen, Biology Co-Author(s): N/A Title: RRM2 as a Key Therapeutic Target to Combat Chemoresistance in Ovarian Cancer	141

Bailey Sauls, Biology Graduate Student - Masters Faculty Mentor: Jon Davenport, Biology Co-Author(s): Dr. Benjamin Fitzpatrick Title: ASSESSING NICHE OVERLAP OF ISOTOPIC AND MORPHOLOGICAL SPACE IN PLETHODONTID SALAMANDERS	142
Zac Spicer, Biology Graduate Student - Masters Faculty Mentor: Jon Davenport, Biology Co-Author(s): N/A Title: DIVERSITY OF TERRESTRIAL SALAMANDER ASSEMBLAGES ALONG ELEVATIONAL GRADIENTS IN THE SOUTHERN APPALACHIANS	143
Cassidy Ferraro, Biology Undergraduate Student Faculty Mentor: Lynn Siefferman, Biology Co-Author(s): Sarah Hill, Sarah Knutie, Lynn Siefferman Title: Effects of Manipulated Incubation Temperature on Baseline Corticosterone Levels in Eastern Bluebirds (Sialia sialis)	144
Luke Darney, Chemistry Undergraduate Student Faculty Mentor: Brooke Christian, Chemistry and Fermentation Sciences Co-Author(s): N/A Title: MECHANISM OF PROTEIN STABILIZATION BY A TARDIGRADE CYTOSOLIC ABUNDANT HEAT SOLUBLE PROTEIN	145
Tyler Witham, Anthropology Undergraduate Student Faculty Mentor: Alice Wright, Anthropology Co-Author(s): Matthew Knowles Title: POINTS OF CONNECTION: DIACHRONIC PATTERNS OF LITHIC PROCUREMENT IN NORTHWESTERN NORTH CAROLINA	146
Jackson Adams, Political Science Undergraduate Student Faculty Mentor: Nancy Love, Government and Justice Studies Co-Author(s): n/a Title: Indigenous Sovereignty and the State: An Examination of the Recognition of Indigenous Legal Sovereignty in International Legal Systems	147
Otto Smith, Sustainable Development Undergraduate Student Faculty Mentor: Alexia Witcombe, Sustainable Development Co-Author(s): N/A Title: PHOSPHORUS BUDGET OF THE APPALACHIAN STATE SUSTAINABLE DEVELOPMENT FARM	148
Hannah Wallace, Psychology Undergraduate Student Faculty Mentor: Jessica Doll, Management Co-Author(s): Natalee Jamerson, Levering White, Brody Behm, Allison Renegar, Jessica Doll, Tim Huelsman, Kristl Davison Title: WE'RE ALL A FAMILY: INVESTIGATING HOW DIVERSITY INTERACTS WITH FEELINGS OF MATTERING, BELONGING, JOB SATISFACTION AND WELL-BEING.	149
Ethan Fountain, Psychology Undergraduate Student Faculty Mentor: Shawn Bergman, Psychology Co-Author(s): Madhu Sukumar, Rachel Weaver, Cassidy Zekas, Oliver Sullivan Title: ENHANCING CAREER OUTCOMES: EVALUATING THE IMPACT OF THE	150

PSYCHOLOGY CAREER ADVISOR AT APPALACHIAN STATE	
Nicole Iturbide, Psychology Graduate Student - Masters Faculty Mentor: Jamie Yarbrough, Psychology Co-Author(s): Gracie Streeval, India Horn, Sara Hehn, Mlynn Wooden, Emily Reigard, Anhminh Nguyen, Hannah Schulze, Kristian Terry, & Elliana Hamilton Title: THE BRAVE NEW WORLD OF AI AND ACADEMIC INTEGRITY	151

Oral Session Morning 9:00am - 10:20am Room 415 Plemmons Student Union

Anna Nall, Political Science Undergraduate Student	9:00am
Faculty Mentor: Nancy Love, Government and Justice Studies	
Co-Author(s): N/A	
Title: ACTIONS SPEAK TO WORDS: AN ANALYSIS OF POLITICAL RHETORIC	
AND VIOLENCE	

CJ Burns, Building Sciences Undergraduate Student Faculty Mentor: Sharareh Shirzad, Sustainable Technology and the Built Environment	9:20am
Co-Author(s): Sharareh Shirzad, Jonathan Culpepper	
Title: THE EFFECT OF BIOCHAR PARTICLE SIZE ON PHYSICAL AND MECHANICAL PROPERTIES OF CEMENT PASTE AND MORTAR	

Alex G. Langlais, Exercise Science Undergraduate Student	9:40am
Faculty Mentor: Martie Thompson, Public Health and Exercise Science	
Co-Author(s): N/A	
Title: Concussion and Mental Health Associations among Youth Before and During the COVID-19 Pandemic: An Empirical Assessment	

Rylee Strassner, Biology Graduate Student - Masters	10:00am
Faculty Mentor: Ashley Adams, Biology	
Co-Author(s): N/A	
Title: COMPARING CARBON STORAGE BETWEEN NATURAL SUCCESSIONAL	
DECIDUOUS FORESTS AND PLANTED CONIFEROUS FORESTS IN THE	
SOUTHERN APPALACHIAN MOUNTAINS	

Oral Session Morning 10:40 am-12:00pm Room 417 Plemmons Student Union

Jonathan Culpepper, Technology Graduate Student - Masters	10:40am
Faculty Mentor: Dr. Sharareh Shirzad, Sustainable Technology and the Built	
Environment	
Co-Author(s): Dr Sharareh Shirzad	
Title: EFFECTS OF ARUNDO DONAX BIOCHAR AND CLASS F FLY ASH ON THE	
MECHANICAL PROPERTIES OF HYDRAULIC CEMENT MORTAR	

Joey Hochstrasser, Biology Undergraduate Student	11:20am
Faculty Mentor: Shea Tuberty, Biology	
Co-Author(s): Marcus Planck, Camden Ryan	
Title: RADON LEVELS IN WATAUGA COUNTY, NORTH CAROLINA	

Katie Baker, Chemistry Undergraduate Student Faculty Mentor: Christian Wallen, Chemistry and Fermentation Sciences	11:40am
Co-Author(s): N/A Title: SYNTHESIS OF ELECTRONICALLY DIVERSE METAL-ORGANIC	
COMPLEXES FOR HYDROGEN SULFIDE CAPTURE	

Afternoon Oral Session 3 1:00-2:20pm Room 415 Plemmons Student Union

Caitlin McClear, Biology Undergraduate Student	1:00pm
Faculty Mentor: Jennifer Geib, Biology	
Co-Author(s): Matthew Johnson, Maryam Ahmed, Audi Holloway	
Title: Viral Spillover from Honey Bee Apiaries in Native Bumble Bee Populations	

Asher Rockriver, Physics Undergraduate Student	1:20pm
Faculty Mentor: Brooke Hester, Physics and Astronomy	
Co-Author(s): Dr. Brooke Hester	
Title: IMPLEMENTATION OF SURFACE ENHANCED RAMAN SPECTROSCOPY IN	
THE BIYOSEF LASER TWEEZER RAMAN SPECTROSCOPY (LTRS) SYSTEM	

Jessica Horton, Physics Undergraduate Student	1:40pm
Faculty Mentor: Andrew Bellemer, Biology	
Co-Author(s): Andrew Bellemer	
Title: UNDERSTANDING THERMAL NOCICEPTION BEHAVIOR ANALYSIS OF THE	
DROSOPHILA CONNECTOME	

Claire Kennedy, Religious Studies Undergraduate Student Faculty Mentor: Randall Reed, Philosophy and Religion	2:00pm
Co-Author(s): N/A	
Title: S[AI]NTS: EXPLORING THE USE OF GPTS FOR SPIRITUAL CONVERSATION	

Thank you for celebrating student research and creative activities with the Office of Student Research!

