

PRESENTATION SCHEDULES

MONDAY, MARCH 25, 2024

COLLEGE OF AGRICULTURE DAY

GRADUATE ORAL PRESENTATIONS - RSP 163

9:00 AM	GO-005	UNDERSTANDING AMINO ACID DIGESTIBILITY OF LOCALLY (TENNESSEE) GROWN SOYBEAN CULTIVARS FOR BROILER CHICKENS, AN IN VITRO STUDY Alexis McDade*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Pramir Maharjan, Virginia Sykes, Ali Taheri
9:10 AM	GO-008	OPTIMIZING ANDROGENIC MEDIA TO PRODUCE SORGHUM BICOLOR EMBRYOGENIC CALLI EXPRESSING THE GREEN FLUORESCENT Aron Felts*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Ahmad Aziz, Christine A. Ondzighi-Assoume
9:20 AM	GO-010	DIET AND GUT MICROBIOME ASSOCIATIONS IN OBESITY Anjula swathi Sagam*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Gajender Aleti
9:30 AM	GO-018	FLOWERING PLANTS FOR ARTHROPOD PEST MANAGEMENT IN CROP PRODUCTION Binita Sigdel*, Yuna Gaire. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Kaushalya Amarasekare
9:40 AM	GO-021	HABITAT USE AND STATUS OF THE PYGMY RATTLESNAKE (SISTRURUS MILIARIUS) IN TENNESSEE Carlin Frost* Jesse Eaker. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): William Sutton, Matthew Grisnik
9:50 AM	GO-022	FRACTIONALIZATION CHARACTERISTICS OF SORGHUM MICROSPORES HARVESTED ACROSS DIFFERENT DEVELOPMENTAL STAGES Chandana Kurapati*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Ahmad Aziz
10:00 AM	GO-026	OBSERVATION OF GROWTH DATA ON HYDRANGEA QUERCIFOLIA Christina Jennings*. <i>Otis L. Floyd Research Center</i> , College of Agriculture. Advisor(s): Fulya Baysal-Gurel, Lisa Alexander
10:20 AM	GO-033	COMBING LUTEOLIN AND INDOLE-3-CARBINOL EXERTS A SYNERGISTIC EFFECT ON INHIBITING ESTROGEN RECEPTOR-POSITIVE BREAST CANCER IN BOTH CAUCASIAN AND AFRICAN AMERICAN Divine Boka*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Hongwei Si
10:40 AM	GO-036	CAPE PEPTIDES ARE INVOLVED IN ROOT ARCHITECTURE AND NODULATION IN MEDICAGO TRUNCATULA. Divya Jain*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Sonali Roy
10:50 AM	GO-037	PROTEOMICS ANALYSIS OF POLLEN THERMOTOLERANCE IN TOMATO VARIETIES WITH CONTRASTING HEAT TOLERANCE TRAITS Dibya Thapa Magar*, Juo Guo, Kajol Pradhan, Priya Thapa. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Suping Zhou, Hui Li, Ted Thannhauser

*Denotes Presenters

GRADUATE ORAL PRESENTATIONS - RSP 163

11:00 AM	GO-053	DEVELOPING GENE EDITING SYSTEM FOR TOMATOES TO GENERATE STRESS TOLERANT LINES Jun Guo*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Suping Zhou, Sonali. Roy
11:10 AM	GO-060	AGRONOMIC PERFORMANCE OF MUNG BEAN IN WEST TENNESSEE Joshua Relyea*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Matthew Blair, Bruce Kirksey
11:20 AM	GO-070	CITRIC ACID/ β-ALANINE CARBON DOT MEDIATED FUNCTIONAL DNA DELIVERY IN PLANTS. Kuber Rangapura s*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Ali Taheri
11:30 AM	GO-085	PHENOTYPIC RESPONSES AND GENE EXPRESSION OF SOUTHERN PEA (VIGNA UNGUICULATA L. WALP.) TO ALUMINUM TOXICITY Max Miller*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Matthew Blair
11:40 AM	GO-086	SCREENING OF BACTERIAL ENDOPHYTES FOR BIOCONTROL OF SOUTHERN BLIGHT IN CANNABIS SATIVA L. Mustapha Olawuni*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Margaret Mmbaga, Emmanuel Omondi

Afternoon Session Begins

1:00 PM	GO-092	ASSESSMENT OF SOYBEAN CYST NEMATODE CONTROL USING OYSTER MUSHROOM (PLEUROTUS SPP.) MYCELIUM Niraj Ghimire*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Ali Taheri, Zeinab Yadegari, Lesley Schumacher
1:10 PM	GO-093	CROWN VOLUME ESTIMATION FOR INDIVIDUAL CONIFER TREES USING AIRBORNE LASER SCANNING DATA Nirmal Thapa*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Bharat Pokharel
1:20 PM	GO-094	AMPHIBIAN IMMUNE GENES; MOLECULAR CHARACTERIZATION AND FUNCTIONAL IMPLICATION OF INTERFERONS AND INTERLEUKIN-17 GENE FAMILIES Oluwaseun Adeyemi*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Yongming Sang
1:30 PM	GO-098	EVALUATION OF REDBUD CULTIVARS FOR RESISTANCE TO CANKER DISEASES PREVALENT IN TENNESSEE Pratima Subedi*. <i>Otis L. Floyd Research Center</i> , College of Agriculture. Advisor(s): Fulya Baysal-Gurel, Prabha Liyanapathiranage
1:40 PM	GO-100	PLANT AND SEED CHARACTERISTICS OF WINTER CANOLA (BRASSICA NAPUS L.) VARIETIES IN TENNESSEE Sudip BK*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Jason de Koff
1:50 PM	GO-104	IDENTIFICATION OF PEPTIDE-RESPONSIVE HISTONE MODIFICATION GENES INVOLVED IN ROOT NODULE SYMBIOSIS Shivani Dharam*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Sonali Roy

**Denotes Presenters*

2:00 PM	GO-108	EVALUATION OF CANOPY COVER, BIOMASS OF COVER CROPS AND WEEDS IN ORGANIC CROPPING SYSTEMS Sai Prakash Naroju*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Dilip Nandwani
2:10 PM	GO-111	QUANTIFYING SALMONELLA TYPHIMURIUM IN GROUND CHICKEN THROUGH SURFACE PLASMON RESONANCE BIOSENSOR ANALYSIS Sandhya Thapa*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Fur-Chi Chen, Aliyar Fouladkhah
2:20 PM	GO-118	SCREENING OF POTENTIAL PI3K INHIBITORS FROM FOOD COMPOUND DATABASE (FoodDB) Vivek Grandhe*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Brahmaiah Pendyala
2:30 PM	UO-079	UNVEILING THE GLOBAL FOOD INSECURITY CRISIS: A COMPARATIVE ANALYSIS OF PREVALENCE IN DEVELOPED AND DEVELOPING COUNTRIES Macaius Jones*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Prabodh Illukpitiya

GRADUATE POSTER PRESENTATIONS - 1ST AND 2ND FLOOR HALLWAYS

9:00 AM - 12:00 PM	GP-003	MODELING FOREST ATTRIBUTES USING AIRBORNE LASER SCANNING: A META-ANALYSIS Anish K C*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Bharat Pokharel
9:00 AM - 12:00 PM	GP-006	ADULT FLATHEADED BORER ATTRACTION TO TRAPS IN THE VICINITY OF VEGETATION DAMAGED BY MOWING OR HERBICIDES AND IMPLICATIONS FOR NURSERY TREE ATTACKS Aubree Morrison*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Jason Oliver, Karla Adesso, Cindy Perkovich
9:00 AM - 12:00 PM	GP-009	POST CRYOPRESERVATION SCREENING OF SORGHUM MICROSPORES ON MS MEDIA WITH VARIOUS ANTIBIOTICS Aron Felts*, Ja'Nyla Holcomb. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Ahmad Aziz, Christine Ondzighi-Assoume
9:00 AM - 12:00 PM	GP-014	CONTINUED PROFESSIONAL DEVELOPMENT AMONG SECONDARY AGRICULTURAL EDUCATION TEACHERS IN UGANDA, A CASE STUDY. Brian Kibirige*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): John Ricketts, Dr. Dustin Perry, Dr. Michael Walach
9:00 AM - 12:00 PM	GP-038	DEVELOPING AN AI-BASED SYSTEM FOR ANALYSIS OF POLLEN THERMOTOLERANCE Dibya Thapa Magar*, Shourav Bin Rabbani, Priya Thapa, Kajol Pradhan. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Suping Zhou, Manar Samad
9:00 AM - 12:00 PM	GP-040	A SYSTEMATIC REVIEW OF THE INFLUENCE OF URBAN SOIL MANAGEMENT ON TREE GROWTH AND LONG-TERM ECOSYSTEM SERVICES Diksha Tamang*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Yujuan Chen

**Denotes Presenters*

9:00 AM - 12:00 PM	GP-047	HERBICIDE RESISTANCE RELEVANT DNA SEQUENCES FOR JOHNSONGRASS AND PIGWEEDS ECOTYPES IN TENNESSEE Gouse Shaik*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Ahmad Aziz, Dilovan Yahya
9:00 AM - 12:00 PM	GP-054	THE DOSE-DEPENDENT BENEFICIAL AND TOXIC EFFECTS OF AL ON SWITCHGRASS Jun Guo*, Priya Thapa, Kajol Pradhan, Dibya Thapa Magar. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Suping Zhou
9:00 AM - 12:00 PM	GP-059	EFFECTS OF SUMMER PLANTING DATES AND WINTER TILLAGE ON MIDDLE TENNESSEE MUNG BEAN PRODUCTION Joshua Relyea*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Matthew Blair
9:00 AM - 12:00 PM	GP-091	GENOME WIDE ANALYSIS OF FIELD SOYBEAN FOR ROOT NODULATION Niraj Ghimire*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Ali Taheri, Korsi Dumenyo
9:00 AM - 12:00 PM	GP-097	COVER CROP CONTRIBUTIONS TO ECOSYSTEM SERVICES IN THE SOUTHEASTERN US: A COMPREHENSIVE ASSESSMENT OF EXISTING KNOWLEDGE AND RESEARCH GAPS Puja Sapkota*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Resham Thapa, Jason De Koff
9:00 AM - 12:00 PM	GP-106	EXAMINING PARTICIPATION IN AGRICULTURAL INSURANCE AMONG SMALL FARMERS IN TENNESSEE Sujan Ghimire*, Purushottam Dhungana. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Aditya Khanal
9:00 AM - 12:00 PM	GP-109	MONITORING HERPETOFAUNA AND OPHIDIOMYCES OPHIDIICOLA PREVALENCE IN LONGLEAF PINE FOREST RESTORATION STANDS IN BANKHEAD NATIONAL FOREST Samuel Robinson*, Rachel Brubaker. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): William Sutton, Donald Walker
9:00 AM - 12:00 PM	GP-110	DEVELOPMENT OF AN IMMUNOMAGNETIC CHEMILUMINESCENT ASSAY FOR QUANTITATIVE DETECTION OF SALMONELLA IN POULTRY PRODUCTS Sandhya Thapa*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Fur-Chi Chen
9:00 AM - 12:00 PM	GP-114	SHORT-TERM SURVIVAL OF ZOO-RAISED AND RELEASED EASTERN HELLBENDERS IN CENTRAL TN AND FUTURE RESEARCH GOALS Taina McLeod*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): William Sutton, Sherri Doro-Reinsh, Dale McGinnity
9:00 AM - 12:00 PM	GP-121	A SYSTEMATIC REVIEW OF THE COOLING EFFECTS OF URBAN Xiaoyue Li*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Yujuan Chen, Ge Sun, De'Etra Young

UNDERGRADUATE POSTER PRESENTATIONS - 1ST FLOOR HALLWAY

1:00 PM - 4:00 PM	UP-019	DENSITY GRADIENT BASED SEPARATION OF SORGHUM NATURAL PROTOPLASTS FOR TRANSFORMATION Blake Wright*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Ahmad Aziz, Aron Felts
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*Denotes Presenters

1:00 PM - UP-028 **FEEDING THE FUTURE: UNLEASHING THE POWER OF FERTILIZERS IN AGRICULTURAL INTENSIFICATION ACROSS NATIONS**
4:00 PM
Charity McWilliams*. *Agricultural and Environmental Sciences*, College of Agriculture.
Advisor(s): Prabodh Illukpitiya

1:00 PM - UP-126 **YIELDS FROM TENNESSEE SWEET SORGHUM VARIETIES PER OPTIMAL HARVESTS FOR BIOFUEL AND FODDER USAGES**
4:00 PM
Zion Hogan*. *Agricultural and Environmental Sciences*, College of Agriculture.
Advisor(s): Ahmad Aziz, Aron Felts, Dilovan Yahya

**Denotes Presenters*

TUESDAY, MARCH 26, 2024

COLLEGE OF ENGINEERING DAY

GRADUATE ORAL PRESENTATIONS - RSP 163

9:00 AM	GO-001	ENHANCING RAILROAD HIGHWAY GRADE CROSSING SAFETY AND EFFICIENCY THROUGH AI-DRIVEN CLOUD-EDGE INTEGRATION Al Amin*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Deo Chimba, Kamrul Hasan
9:10 AM	GO-016	ANALYZING IMPACT OF POLICE RESPONSE TIME IN THE CLEARANCE AND DURATION OF TRAFFIC CRASHES IN TENNESSEE Bryson Mgani*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Deo Chimba
9:20 AM	GO-020	DESIGN AND SIMULATION OF OPTIMAL MICROFLUIDIC CHANNEL FOR EFFECTIVE FLUID MIXING Christopher Buford*. <i>Mechanical and Manufacturing Engineering</i> , College of Engineering. Advisor(s): Landon Onyebueke, Sabrina Torres
9:30 AM	GO-025	IMIDACLOPRID PHOTOLYSIS UNDER TEMPERATURE. Richard Chimba*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Lin Li, Roger Painter
9:40 AM	GO-032	AUTONOMOUS SOFTWARE SECURITY VULNERABILITY DETECTION BASED ON MACHINE LEARNING Daniela Birungi*. <i>Computer Science</i> , College of Engineering. Advisor(s): Fenghui Yao
9:50 AM	GO-039	EXPLORING THE MECHANICAL ENHANCEMENT OF HYDROGEL-TREATED CONSTRUCTION AND DEMOLITION FINES Dorcas Machimu*, Cescar Kangongo. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Shihui Liu, Lin Li, Andrea Gardiner
10:00 AM	GO-044	ENHANCING IoT CYBERSECURITY WITH AI-ENABLED ZERO TRUST: THE INTEGRATION OF REINFORCEMENT LEARNING FOR ADAPTIVE THREAT DETECTION AND RESPONSE Ekramul Haque*. <i>Electrical and Computer Engineering</i> , College of Engineering. Advisor(s): Kamrul Hasan
10:10 AM	GO-045	INTELLIGENT NETWORK FUNCTION PLACEMENT FOR NETWORK SLICING IN 5G NETWORKS: THE CASE FOR NETWORK SLICES TRAFFIC DIFFERENCES Emmanuel Samson*. <i>Electrical and Computer Engineering</i> , College of Engineering. Advisor(s): Kamrul Hasan, Liang Hong
10:20 AM	GO-049	ANALYZING HAZARDOUS MATERIALS (HAZMAT) TRANSPORTATION INCIDENTS USING TEXT MINING TECHNIQUES Irene Akyoo*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Deo Chimba
10:40 AM	GO-050	EVALUATING THE IMPACT OF MEDIAN CABLE BARRIERS ON REDUCING FATAL AND SERIOUS INJURY CRASHES IN TENNESSEE OVER A SIX-YEAR PERIOD Innocent Macha*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Deo Chimba
10:50 AM	GO-072	VERIFICATION OF BOEING 737-800 AIRCRAFT MODEL WITH VARIED COMPONENTS USING MATLAB-AID Lynn Fatu*. <i>Mechanical and Manufacturing Engineering</i> , College of Engineering. Advisor(s): Muhammad Akbar

GRADUATE AND UNDERGRADUATE ORAL PRESENTATIONS - RSP 163

11:00 AM	GO-081	AERODYNAMIC STUDY OF A BOEING 737-800 AIRCRAFT USING HIGH-FIDELITY TURBULENCE MODELS Mukesh Khatri*. <i>Mechanical and Manufacturing Engineering</i> , College of Engineering. Advisor(s): Muhammad Akbar
11:10 AM	GO-083	MODELING NEAR MISS LEVERAGING ARTIFICIAL INTELLIGENCE (AI) IN ADVANCED MULTIMODAL DATA Md Atiqur Rahman Mallick*. <i>Electrical and Computer Engineering</i> , College of Engineering. Advisor(s): Kamrul Hasan
11:20 AM	GO-087	COMPUTER AIDED MODELING OF BOEING 737-800 AIRCRAFT FOR AERODYNAMIC STUDY USING SOLIDWORKS SOFTWARE Md Mashiur Rahman*. <i>Mechanical and Manufacturing Engineering</i> , College of Engineering. Advisor(s): Muhammad Akbar
11:30 AM	GO-102	REINFORCEMENT LEARNING BASED SMART GRID CONTROL OF AN 8MVA MICROGRID OPERATED IN GRID TIED AND ISLAND MODES Richard Wiencek*. <i>Electrical and Computer Engineering</i> , College of Engineering. Advisor(s): Sagnika Ghosh
11:40 AM	GO-103	ASSESSING RAILROAD CROSSING SAFETY: A MACHINE LEARNING APPROACH Sandeep Bist*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Deo Chimba
11:50 AM	GO-107	DEVELOPING TRAFFIC VOLUME (AADT) PREDICTION ALGORITHM USING KNN Subash Gupta*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Deo Chimba
1:00 PM	UO-012	AERODYNAMIC STUDY OF BOEING 737-800 WITH DISTRIBUTED PROPULSION SYSTEM Avraz Tovi*, Mohammed Alneamah*. <i>Mechanical and Manufacturing Engineering</i> , College of Engineering. Advisor(s): Muhammad Akbar

Afternoon Session Begins

1:10 PM	UO-013	APPLICATION OF FLUID POWER TO DRIVE VEHICLES Anthony Wheeler*, Kaylen Essix*. <i>Mechanical and Manufacturing Engineering</i> , College of Engineering. Advisor(s): Mohammad Habibi
1:20 PM	UO-035	A LITERATURE SURVEY ON AERODYNAMICS AROUND AN AIRCRAFT Donovan Davis*. <i>Mechanical and Manufacturing Engineering</i> , College of Engineering. Advisor(s): Muhammad Akbar
1:40 PM	UO-066	PROTOTYPING OF AN AUTONOMOUS MAZE EXPLORATION AND OPTIMAL PATH PLANNING ROBOT Kamren James*, Mikayla Lewis*. <i>Mechanical and Manufacturing Engineering</i> , College of Engineering. Advisor(s): Mohammad Habibi
1:50 PM	UO-123	IDENTIFYING KEY INFLUENCERS OF ACCIDENTS AT RAILROAD-HIGHWAY CROSSINGS: A TENNESSEE CASE STUDY Zaria Bullard*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Deo Chimba
2:00 PM	UO-124	COMPUTATIONAL FLUID DYNAMICS (CFD) STUDY OF BOEING 737-800 PROPULSION SYSTEM Zackee Doskey*, Markel Belcher*. <i>Mechanical and Manufacturing Engineering</i> , College of Engineering. Advisor(s): Muhammad Akbar

**Denotes Presenters*

GRADUATE AND UNDERGRADUATE POSTER PRESENTATIONS - 1ST FLOOR HALLWAY

9:00 AM - 12:00 PM	GP-015	HYDROGEL STABILIZATION OF CONSTRUCTION AND DEMOLITION (C&D) WASTE WITH HIGH FINES CONTENT: ENHANCING MECHANICAL BEHAVIOR AND ENVIRONMENTAL COMPATIBILITY Beatrice Magombana*, Cescar Kangogo, Dorcas Machimu. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Lin Li, Shihui Liu
9:00 AM - 12:00 PM	GP-027	EVALUATION OF GREEN INFRASTRUCTURE TO MITIGATE INCREASED STORMWATER VOLUMES IN DISADVANTAGED COMMUNITIES Cescar Kangogo*, Andrew Mikhaeil*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Andrea Gardiner
9:00 AM - 12:00 PM	GP-042	NICKEL FOAM AND CARBON FIBER AS CURRENT COLLECTOR FOR ALKALINE NICKEL-IRON RECHARGEABLE CEMENT-BASED BATTERIES Dandan Yin*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Shihui Liu, Liqiang Yin, Lin Li
9:00 AM - 12:00 PM	GP-058	COLLISION PREDICTION AT RHCS: INSIGHTS FROM TENNESSEE'S TRAFFIC DATA Jeannine Mbabazi*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Deo Chimba
9:00 AM - 12:00 PM	GP-062	FABRICATION OF ANTIBODY-LOADED MICROPARTICLES FOR SUSTAINED-RELEASE IMMUNOTHERAPY OF OVARIAN CANCER Karla Robles*. <i>TIGER Institute</i> , College of Engineering. Advisor(s): Richard Mu, Todd Giorgio
9:00 AM - 12:00 PM	GP-080	INVESTIGATION OF PHOTODEGRADATION OF THIAMETHOXAM AND ACETAMIPRID IN AQUEOUS ENVIRONMENT UNDER UVB IN 4, 7 AND 9 pH Mercy Kangogo*, Doris Noah*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Lin Li, Roger Painter, Gardiner Andrea
9:00 AM - 12:00 PM	GP-084	LEVERAGING ADVANCED DATA TO DEVELOP AN AI MODEL DELIVERING MULTIMODAL SAFETY Md Atiqur Rahman Mallick*. <i>Electrical and Computer Engineering</i> , College of Engineering. Advisor(s): Kamrul Hasan
9:00 AM - 12:00 PM	GP-115	ROBUST PRIVATE AI FRAMEWORK USING FEDERATED LEARNING AND HOMOMORPHIC ENCRYPTION FOR ELECTRIC UTILITY INFRASTRUCTURE DEFECT DETECTION Tupac Moseley*. <i>Electrical and Computer Engineering</i> , College of Engineering. Advisor(s): Kamrul Hasan
9:00 AM - 12:00 PM	UP-119	BGP ATTACK AND PROTECTION EMULATION USING THE SEED INTERNET EMULATOR Walker Williams*. <i>Electrical and Computer Engineering</i> , College of Engineering. Advisor(s): Kamrul Hasan
9:00 AM - 12:00 PM	UP-125	PREDICTING AND MITIGATING CYBER THREATS ON URBAN AIR MOBILITY THROUGH REINFORCEMENT LEARNING Zeinab Elkhatab*. <i>Electrical and Computer Engineering</i> , College of Engineering. Advisor(s): Kamrul Hasan

**Denotes Presenters*

WEDNESDAY, MARCH 27, 2024

COLLEGE OF HEALTH SCIENCES DAY

GRADUATE ORAL PRESENTATIONS - RSP 163

1:00 PM	GO-043	CASPER ASSESSMENT INTEGRATION: FOSTERING DIVERSITY IN TENNESSEE STATE UNIVERSITY'S DOCTORATE OF PHYSICAL THERAPY PROGRAM ADMISSIONS Erin Cannon*, Nhadya Cambridge*. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Richard Clark, David Lehman.
1:10 PM	GO-051	CRITICAL GEOGRAPHY AND THE SPATIAL NATURE OF RACE Gionni Carr*, Kendra `Bassett. <i>Education Leadership</i> , College of Education. Advisor(s): Rajah Smart
1:20 PM	GO-067	MEETING THE CHALLENGE: EVALUATING TENNESSEE'S PREPAREDNESS FOR INCREASED DEMAND IN PELVIC HEALTH Kariya Jennings*, Princesse Hawkins. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Marsha Bowman
1:40 PM	GO-021	HABITAT USE AND STATUS OF THE PYGMY RATTLESNAKE (SISTRURUS MILIARIUS) IN TENNESSEE Carlin Frost*, Jesse Eaker. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): William Sutton, Matthew Grisnik

GRADUATE AND UNDERGRADUATE POSTER PRESENTATIONS - 1ST AND 2ND FLOOR HALLWAYS

1:00 PM - 4:00 PM	GP-024	THE ROLE OF PROTEIN INTAKE AND EXERCISE ON MUSCLE STRENGTH IN OLDER ADULTS WITH SARCOPENIA Christian Haynes*, Jack Johnston. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Derek Charles
1:00 PM - 4:00 PM	GP-029	PHYSICAL THERAPY'S ROLE IN A MULTIDISCIPLINARY TEAM FOR PREVENTION OF COMORBIDITIES IN PATIENTS WITH PTSD- ASSOCIATED CHRONIC PAIN Cassandra Zaino*, Jennifer Bauer. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Richard Clark
1:00 PM - 4:00 PM	GP-030	HOW DOES SELF-REFLECTION AND REVIEW IMPACT PHYSICAL THERAPY STUDENTS' CONFIDENCE DURING AN OBJECTIVE STRUCTURED CLINICAL EXAMINATION (OSCE)? Destiny Akinagbe* <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Deborah Edmondson, Marsha Bowman
1:00 PM - 4:00 PM	GP-041	EARLY SPORTS SPECIALIZATION AND RISK OF INJURY Destiny Tusie*, Novalee Feichko. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Richard Clark
1:00 PM - 4:00 PM	GP-046	THE ROLE OF MACHINE AND FREE WEIGHT TRAINING FOR OLDER ADULTS: A SYSTEMATIC REVIEW Garrison Benner*, Wade Denison. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Marsha Bowman
1:00 PM - 4:00 PM	GP-061	TREATING CHILDREN WITH HEARING LOSS: ASSESSING COMFORT LEVELS IN TENNESSEE STATE UNIVERSITY SLP GRADUATE STUDENTS Jason Watkins*. <i>Speech Pathology and Audiology</i> , College of Health Sciences. Advisor(s): Danielle Watson

1:00 PM - 4:00 PM	GP-065	COST EFFECTIVE-APPROACH TO QUALITATIVE ANALYSIS: ANALYSIS OF DATA FROM A STUDY OF THE DEVELOPMENT OF AN ACADEMIC-COMMUNITY PARTNERSHIP Korab Idrizi*, Khem Plata. <i>Center for Prevention Research</i> , Research and Sponsored Programs. Advisor(s): Rebecca Selove, David Schlundt
1:00 PM - 4:00 PM	GP-068	ENHANCING POST-INJURY REHABILITATION: A FOCUS ON PREHABILITATION FOR ATHLETES Kariya Jennings*, Dakota Hill. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Deborah Edmondson
1:00 PM - 4:00 PM	GP-069	SUPERWOMAN SCHEMA AND PSYCHOLOGICAL DISTRESS AMONG AFRICAN-AMERICAN WOMEN OF DIFFERENT SOCIAL CLASSES Keyishi Peters*. <i>Psychology</i> , College of Education. Advisor(s): Marie Hammond
1:00 PM - 4:00 PM	GP-074	GRIEF IN UNDERGRADUATE POPULATIONS: EXPRESSION BASED ON IDENTITY FACTORS Leah Kepley*. <i>Psychology</i> , College of Education. Advisor(s): Marie Hammond
1:00 PM - 4:00 PM	GP-077	PLAYFUL AGING: USING A FUNCTIONAL APPROACH TO PHYSICAL THERAPY WITH OLDER ADULTS: A SYSTEMATIC REVIEW Mallory Briggs*, Ricky Cantrell. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Karen Smith
1:00 PM - 4:00 PM	GP-095	AN EVALUATION OF ATTITUDES TOWARDS TRANSGENDER AND GENDER NON-BINARY UNDERGRADUATE STUDENTS AT HISTORICALLY BLACK COLLEGES AND UNIVERSITIES Olivia Jackson* <i>Psychology</i> , College of Education. Advisor(s): Marie Hammond
1:00 PM - 4:00 PM	GP-096	EFFECTIVE SENSORY INTERVENTIONS FOR DECREASING TEST ANXIETY IN HIGHER EDUCATION STUDENTS. Opulence Venton*, Kenna McPherson. <i>Occupational Therapy</i> , College of Health Sciences. Advisor(s): Laura Carpenter, Lauren Beard, Guinevere Bennett
1:00 PM - 4:00 PM	GP-101	EXAMINING TESTOSTERONE AND STRENGTH TRAINING IN OLDER ADULT MALES: A SYSTEMATIC REVIEW Roy Etta*, Hamid Hadipour. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Ronald Barredo, David Lehman
1:00 PM - 4:00 PM	GP-117	EPIGENETICS AND PHYSICAL THERAPY: APPLYING THE MECHANISMS OF EPIGENETICS TO PRACTICE AS PREVENTATIVE HEALTH MEASURES Ulani Robinson*, Erika Porter. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Patricia King
1:00 PM - 4:00 PM	UP-064	THE GAME CHANGER: A CASE FOR ACADEMIC ESPORTS AS A STRATEGIC TOOL FOR STUDENT ENGAGEMENT AND SUCCESS AT TENNESSEE STATE UNIVERSITY Kiara Davis*. <i>Teaching and Learning</i> , College of Education. Advisor(s): Robert O'Keefe Hassell
1:00 PM - 4:00 PM	UP-078	BEYOND TEXTBOOKS: AI-POWERED IMMERSIVE LEARNING EXPERIENCES & AMPLIFYING STUDENT LEARNING Marcus Horton*. <i>Teaching and Learning</i> , College of Education. Advisor(s): Robert O'Keefe Hassell
1:00 PM - 4:00 PM	UP-004	MEDIAN CABLE BARRIERS' ROLE IN CRASH REDUCTION IN TENNESSEE Aaron Lamson*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Deo Chimba

*Denotes Presenters

1:00 PM - GP-109
4:00 PM

**MONITORING HERPETOFAUNA AND OPHIDIOMYCES OPHIDIICOLA
PREVALENCE IN LONGLEAF PINE FOREST RESTORATION STANDS IN
BANKHEAD NATIONAL FOREST**

Samuel Robinson*, Rachel Brubaker. Agricultural and Environmental Sciences, College
of Agriculture. Advisor(s): William Sutton, Donald Walker

**Denotes Presenters*

THURSDAY, MARCH 28, 2024

COLLEGE OF LIFE AND PHYSICAL SCIENCES DAY

GRADUATE AND UNDERGRADUATE ORAL PRESENTATIONS - RSP 163

9:00 AM	GO-034	“ELUCIDATING THE ROLE OF SFRP2 IN MODULATING ORGAN Delany Bradford*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Sarika Saraswati, Kim Cooney
9:10 AM	GO-076	HIGH SALT DIET-INDUCED TUMOR INITIATING STEM CELLS MEDIATE BREAST CANCER PROGRESSION Lisa Tucker*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Venkataswarup Tiriveedhi
9:20 AM	GO-116	CRITICAL ROLE OF DEFENSINS IN RESPIRATORY VIRAL INFECTION INDUCED BREAST CANCER PROGRESSION Umer Ali*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Venkataswarup Tiriveedhi
9:30 AM	UO-017	NEW CROSS-COUPPLING PROCESS OF MAKING CHOLESTEROL ESTERS Brooklyn Phillips*. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Mohammad Al-Masum
9:40 AM	UO-023	WNT SIGNALING INHIBITION PROMOTES WOUND HEALING AND INHIBITS FIBROSIS IN CHRONIC WOUNDS Camille Haskins*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Sarika Saraswati, Hannah Barge, Dina Hassan, MD
9:50 AM	GO-007	IMPACT OF NITROGEN FERTILIZER, MANAGEMENT PRACTICES ON YIELD-SCALED NITROUS OXIDE EMISSION FROM CORN AND SOYABEAN AGRI-FIELD: A META-ANALYSIS Avedananda Ray*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Dafeng Hui

GRADUATE AND UNDERGRADUATE POSTER PRESENTATIONS - 1ST AND 2ND FLOOR HALLWAYS

9:00 AM - 12:00 PM	GP-011	TOLL-LIKE RECEPTOR 4 INVOLVEMENT IN PENTACHLOROPHENOL AND DIBUTYLTIN INDUCED STIMULATION OF IL-1B AND IL-6 IN HUMAN IMMUNE CELLS Aleshia Seaton-Terry*, Zinia Hunter. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen
9:00 AM - 12:00 PM	GP-031	TRIBUTYLTIN AND DIBUTYLTIN STIMULATION OF TUMOR NECROSIS FACTOR A EXPRESSION IN HUMAN IMMUNE CELLS: ROLE OF TOLL-LIKE RECEPTOR 4 Latoya Daniel*, Aleshia Seaton-Terry, Meaghan Lewis. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen
9:00 AM - 12:00 PM	GP-052	EFFECTS OF GLOBAL WARMING AND ELEVATED CO2 ON PEATLAND ECOSYSTEM PRODUCTIVITY AND GREENHOUSE GAS EMISSIONS: A MODELING STUDY Jackedah Christian*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Dafeng Hui
9:00 AM - 12:00 PM	GP-073	AN EVALUATION OF META-ANALYSES OF GREENHOUSE GAS EMISSIONS AND CROP YIELD UNDER CONSERVATION TILLAGE Lovish Kasrija*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Dafeng Hui

9:00 AM - 12:00 PM	GP-082	REGIOSELECTIVE N-ALLYLATION AND C-ALLYLATION BY Pd-CATALYZED CROSS-COUPPLING OF INDOLE WITH POTASSIUM ALLYLTRIFLUOROBORATE Milton Kumar Kundu*. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Mohammad Al-Masum
9:00 AM - 12:00 PM	GP-088	PALLADIUM-CATALYZED MICROWAVE IRRADIATED CROSS-COUPPLING OF CARBOXYLIC ACIDS AND AMINOETHANOLS Md Shahin Reza*, Milton Kumar Kundu*. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Mohammad Al-Masum
9:00 AM - 12:00 PM	GP-120	TOLL-LIKE RECEPTORS IN THE MECHANISM OF HEXABROMOCYCLODODECANE-INDUCED PRODUCTION OF PRO-INFLAMMATORY CYTOKINES, IL-1β, IL-6, AND TNF-α Wenjun Zhu*, April Falconer-Turner. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen
9:00 AM - 12:00 PM	UP-002	INVESTIGATING THE EFFECT OF A TRYPTOPHAN- AND ARGININE-RICH ANTIMICROBIAL PEPTIDE ON MULTIDRUG-RESISTANT BACTERIA Autumn Jones*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Bashiyar Almarwani
9:00 AM - 12:00 PM	UP-056	BEHAVIOR OF AMPK IN PC-3 CELLS, FOLLOWING EXPOSURE TO TRIPHENYL METHANOL DERIVATIVES (TPMS) Jamari Jemison*, Kennedy Wilbert*, Tayala Hizer*. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): William Boadi
9:00 AM - 12:00 PM	UP-057	SYNTHESIS OF POROUS MATERIAL CONTAINING REAR EARTH METAL Janasica Joyner*. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Tasneem Siddiquee
9:00 AM - 12:00 PM	UP-063	ANTIMICROBIAL, TRICLOSAN (TCS) INCREASES TRIHALOMETHANES IN TENNESSEE DRINKING WATER IN RESPONSE TO COVID-19 Katherine Hophan*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Wendy Wilburn, Sujata Guha, Dr. Ryan Beni
9:00 AM - 12:00 PM	UP-075	BIOPHYSICAL STUDIES OF THE SHORT ANTIMICROBIAL PEPTIDE RIR INTERACTING WITH MEMBRANE-MIMETIC SYSTEMS Logan Strong*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Bashiyar Almarwanti, Nsoki Phambu
9:00 AM - 12:00 PM	UP-089	PHARMACOKINETIC INTERACTIONS BETWEEN QUININE AND VANCOMYCIN Miracle Walker*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Bashiyar Almarwani
9:00 AM - 12:00 PM	UP-099	THE ROLE OF TOLL-LIKE RECEPTOR 3 IN DIBUTYLTIN STIMULATION OF TUMOR NECROSIS FACTOR α PRODUCTION IN HUMAN IMMUNE Quinn Hudson*, Latoya Daniel. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen
9:00 AM - 12:00 PM	UP-105	TRIBUTYLTIN-INDUCED PRODUCTION OF INTERLEUKIN-6 IN HUMAN IMMUNE CELLS REQUIRES MYD88 ACTIVATION Sophia Fisher*, Meaghan Lewis. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen
9:00 AM - 12:00 PM	UP-112	EVALUATING MACROPHAGE METABOLISM AND POLARIZATION IN LEAN AND OBESE MICE FOLLOWING RADIATION THERAPY Tatiana Eason*. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen, Kevin Corn, Marjan Rafat

*Denotes Presenters

9:00 AM - 12:00 PM	UP-122	THE ROLE OF TOLL-LIKE RECEPTORS 3, 4, AND 8 IN TRIBUTYLTIN STIMULATION OF TUMOR NECROSIS FACTOR α PRODUCTION BY HUMAN IMMUNE CELLS Meaghan Lewis*, Sophia Fisher. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen
9:00 AM - 12:00 PM	UP-127	TOLL-LIKE RECEPTOR 3 IS INVOLVED IN DIBUTYLTIN STIMULATION OF INTERLEUKIN-6 PRODUCTION IN HUMAN IMMUNE CELLS. Zinia Hunter*, Aleshia Seaton-Terry. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen

**Denotes Presenters*