

Schedule of Events - This is Research: Student Symposium 2017

April 13th

Auburn University Student Center

8:00 a.m.

Continental Breakfast (Level 2 - beside rooms 2222 and 2223)

Registration (all day; Level 2 at entrance near room 2227)

8:00 a.m. – 12:00 p.m.

Oral Paper Sessions

(Level 2 - rooms 2216, 2218, 2222, 2225, 2227, 2310, 2326)

11:30 a.m. – 1:00 p.m.

Morning Poster Session

Networking Lunch

(Level 3 - Ballroom)

1:00 p.m. – 4:45 p.m.

Oral Paper Sessions

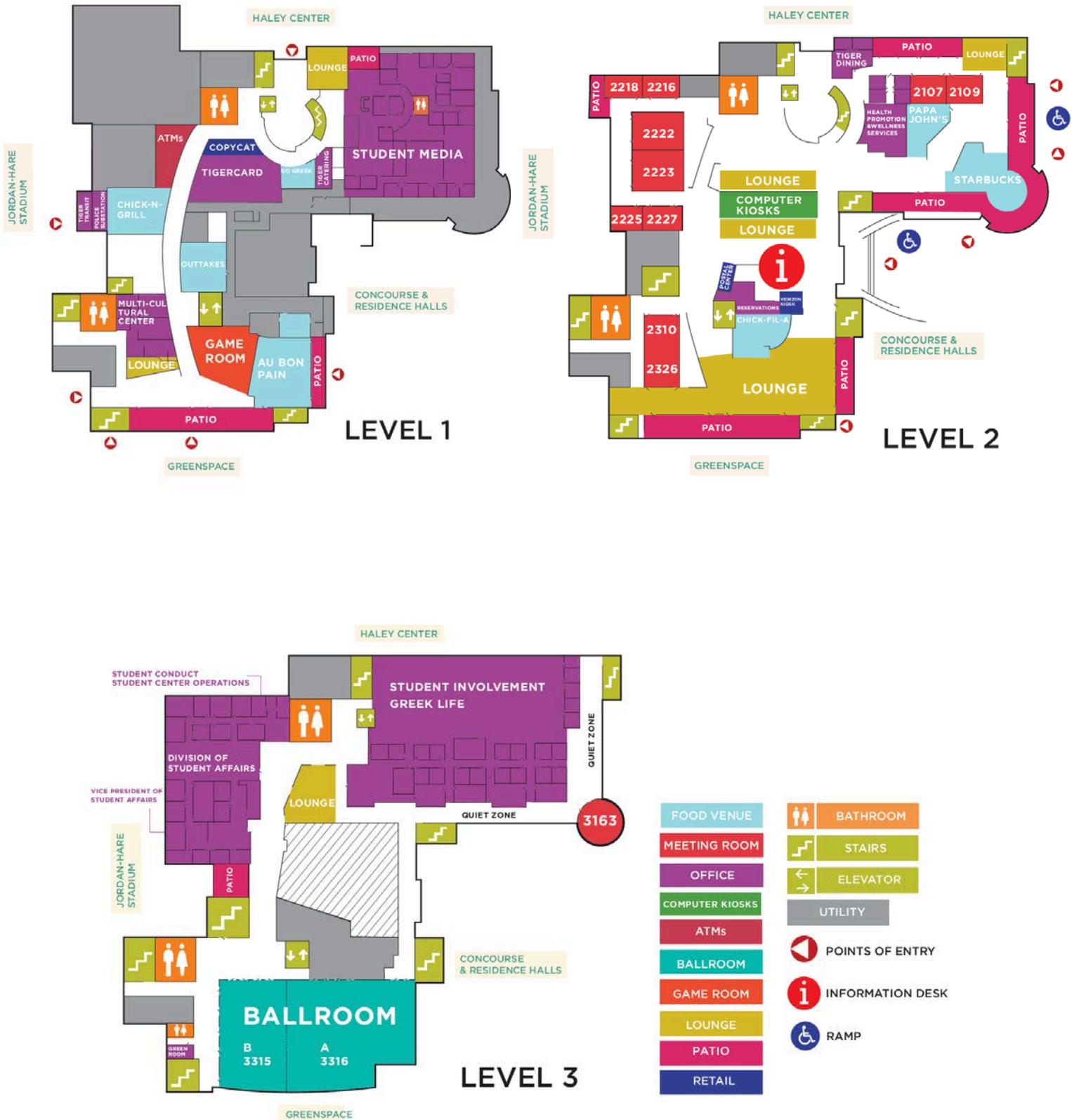
(Level 2 - rooms 2216, 2218, 2222, 2225, 2227, 2310, 2326)

4:30 p.m. – 6:00 p.m.

Afternoon Poster Session

(Level 3 - Ballroom)

Map of Auburn University Student Center



Oral Research Presentations – Morning Session

Student Center Meeting Rooms

8:00 – 8:45 a.m.

Room 2216 – Education/Communication

- **Moss, Jackson** (G) – Dress of the instructor in a lab setting
- **Lin, Xi** (G) – Achievement goal orientations and self-regulated learning strategies of adult and traditional learners
- **Seung-Bickley, Rebecca** (G) – Comparing credibility compliance of online health websites: An examination of pro- and anti-vaccination websites

Room 2218 – Poultry Science

- **Smith, Avery** (UG) – Evaluation of bioelectric impedance analysis to detect wooden breast myopathy from broiler breast fillets
- **Patton, Samantha** (UG) – Exploring magnetic resonance imaging technology for observing detectable differences of wooden breast
- **Porter, J. Adam** (G) – Effect of white mustard essential oil against *Salmonella* spp. In combination with carvacrol and thymol in vitro and in ground chicken

Room 2222 – Chemical Engineering

- **Stone, Kyle** (G) – Carbon and growth analysis of a methane consuming bacteria
- **Hanley, Alan** (G) – Characterization and self-assembly of Janus nanoparticles
- **Tian, Yuan** (G) – Peptide grafted poly(ethylene glycol) hydrogel support endothelial colony forming cells dynamic adhesion under fluid shear

Room 2225 – Psychology

- **Schaefer, Megan** (G) – Understanding Attention-Deficit/Hyperactivity Disorder (ADHD) medication self-management in college freshmen: Experiences, needs, and challenges
- **Wagoner, Scott** (G) – Examining a chronic illness as a possible protective factor for engagement in risky behaviors in a college sample
- **Nuhu, Nadratu** (G) – Evaluation of parent-child interaction therapy following functional analyses

Room 2227 – Agriculture/Animal Sciences

- **Bennett, Katie** (G) – Overseeding Eastern gamagrass with cool-season grasses or grass-legume mixtures
- **Fike, Connie** (G) – Nutritive quality of Coastal bermudagrass treated with plant growth-promoting rhizobacteria
- **Gunter, Phillip** (G) – Evaluation of nitrogen delivery methods for stocker cattle grazing annual ryegrass

Room 2310 – Biological Sciences

- **Godwin, Rebecca** (G) – Systematics of the genus *Ummidia*: species delimitation using natural history collections
- **Josefson, Chloe** (G) – Physiological and life history variation associated with reproductive performance across species of lab mice
- **Alexandra Colombara** (G) – Habitat segregation and population structure of coral reef sea anemones and symbiotic crustaceans

Room 2326 – Human Development and Family Studies

- **Hlavaty, Kathleen** (G) – Differentiating domestic violence exposure experiences in a young adult sample
- **Savasuk, Rachel** (G) – Understanding change in violence-related attitudes for adolescents in relationship education
- **Cero, Ian** (G) – Suicidal behaviour as a network of causally connected symptoms: A new strategy for prevention

9:00 – 9:45 a.m.

Room 2216 – Humanities and Art History

- **Bewley, Shannon** (UG) – The part and the whole: The multiple perspectives of Tara Donovan's *Untitled (Styrofoam Cups)*
- **Skjellum, Hannah** (UG) – Reviving the mother of the blues: a continuation of the reconsideration of Ma Rainey as an important black queer figure
- **Shipley, Kelsie** (UG) – The unpublished *Roman à Clef*: private fiction and public figures at the turn of the 19th century in *The Navy Officer*

Room 2218 – Forestry and Wildlife Sciences

- **Daniel, Marissa** (G) – Utilization of phone app technology to record log truck movements
- **Xu, Yecheng** (G) – New mobility to sustainability: Herder and animal husbandry
- **Devkota, Pratima** (G) – Induced systemic resistance of *Pinus taeda* to *Leptographium terebrantis* and *Grosmannia huntii* by plant growth-promoting rhizobacteria

Room 2222 – Chemical Engineering

- **Passantino, Joshua** (UG) – Mechanical effects of PEO addition and flocculation on sheared cellulose nanocrystal films
- **Preisser, Matthew** (UG) – The role of knowledge in fostering international cooperation to better understand the environmental effects of marine renewable energy through the use of *Tethys*
- **Kaczmarek, Jennifer** (UG) – Direct production of human engineered cardiac tissues by pluripotent stem cell encapsulation in gelatin methacryloyl

Room 2225 – Fisheries

- **Qin, Guyu** (G) – Gene editing of the gonadotropin releasing hormone gene to sterilize channel catfish, *Ictalurus punctatus*, using a modified transcription activator-like effector nuclease technology with electroporation
- **Cai, Wenlong** (G) – Global transcriptional analysis of biofilm development by fish pathogen *Flavobacterium columnare*
- **Burgos, Francisca** (G) – Origin, composition, and diversity of the gut microbial communities in channel catfish *Ictalurus punctatus*

Room 2227– Mechanical Engineering

- **Talebinezhad, Hossein** (G) – Dielectric behavior and non-ohmic behavior of CCTO/SiO₂ composites
- **Shrestha, Rakish** (G) – Fatigue modeling of a thermoplastic polymer under mean strain and variable amplitude block loadings
- **Pegues, Jonathan** (G) – Influence of microstructure on crack initiation and microstructurally small crack growth of an austenitic stainless steel

Room 2310 – Entomology, Crop and Soil Sciences/Agricultural Economics

- **Wang, Xiaodi** (G) – Investigation of tick density, diversity, and pathogen prevalence among forested sites in east-central Alabama
- **Harry, Brittany** WITHDRAWN
- **Chen, Rui** (G) – Virtual water trade: Do bilateral tariffs matter?

Room 2326 – Biological Sciences

- **Brasher, Adam** (UG) – Does relative activity prior to breeding improve mitochondrial function and oxidative damage following a reproductive event?
- **Prestridge, Laura** (UG) – Parasite communities and diet of the Redspot Darter (*Etheostoma artesiae*) along a stream-size gradient
- **Choi, Jiyeong** (UG) – Patterns of Ni concentration among populations of the high-Ni insect *Melanotrichus boydi* (Hemiptera: Miridae), a specialist on the Ni hyperaccumulator plant *Streptanthus polygaloides* (Brassicaceae)

10:00 – 10:45 a.m.

Room 2216 – Forestry and Wildlife Sciences

- **Lambert, Shannon** (UG) – Evaluation of scents for baiting wild pigs
- **Broadhead, Jordan** (UG) – Does community conservation improve human and wildlife health?
- **Rankins, Seth** (UG) – High prevalence of *Anaplasma platys* infection in Alabama white-tailed deer

Room 2218 – Kinesiology

- **Johnson, Jerraco** (G) – Influence of high and low autonomy-supportive climates on physical activity in children with and without developmental disability
- **Daou, Marcos** (G) – Expecting to teach enhances motor learning and information processing during practice
- **Edwards, Madison, and Montagner Sassi, Julia** (G) – Cognitive and motor abilities in preschool children from low socioeconomic backgrounds

Room 2222 – Chemical/Computer Engineering

- **Paul, Kyle** (UG) – Nanoparticle surface characteristics impact *in vitro* cytotoxicity
- **Pinkston, Jessica** (UG) – Modelling pH dependent controlled drug delivery in contact lenses
- **Liu, Tian** (G) – An application of internet of things in chemical engineering

Room 2225 – Biological Sciences, Communication Disorders, and Drug Discovery

- **Bauer, Eric** (G) – Biodiversity patterns in upland streams of the southeastern US do not match the predictions of the Mighty Headwater Hypothesis
- **Gould, Dianna Ting** (G) – Myers-Briggs type indicator dichotomies as a predictor of hearing aid benefit in adult users
- **Briggs, Gwyneth** (UG) – SIRT3 agonists attenuate beta-Amyloid production in vitro through SIRT3-PGC1 α -AMPK signaling pathway

Room 2227 – Fisheries

- **Gratz, Steven** (G) – Economic value of recreational fishing on reservoir and tailrace sections of Millers Ferry Reservoir, Alabama
- **Abass, Nermeen Y** (G) – Comparisons among channel catfish *Ictalurus punctatus*, blue catfish *I. furcatus*, and channel ♀ × blue ♂ hybrid catfish for growth, and salinity tolerance
- **Jescovitch, Lauren** (G) – Water quality and design of split-pond aquaculture

Room 2310 – Educational Foundations

- **Huang, Mingyu** (G) – Using danmaku in online lecture videos: An exploratory study
- **Shi, Yuewei** (G) – Teaching behaviours of international Asian professors
- **Powell, Stephen** (G) – Chronic stress and emotional regulation: A mixed methods analysis

Room 2326 – Mechanical, Electrical/Computer Engineering/Kinesiology

- **Tucker, Zoe** (UG) – The performance of translucent silicon-oxide nanoparticle lubricant additives
- **Gilmer, Gabrielle** (UG) – Effects of pain history on pitching mechanics in collegiate pitchers

11:00 a.m. – 12:00 p.m.

Room 2216 – Biosystems and Chemical Engineering

- **Barde, Mehul** (G) – Epoxy-novolac thermoset polymers based on pyrolytic bio-oil
- **Bonts, Emily** (G) – The observation of lined BioRetention cells as a closed system
- **Saha, Partha** (G) – Selective reflection of light from photonic cellulose nanocrystal coatings

Room 2218 – Social Sciences and Economics

- **Gibbs, Corey** (UG) – Filipina immigration and identity
- **Skuropat, Aislinn** (UG) – Background checks and draft favorability in the NFL
- **D, Bharat** (G) – Dynamics of human capital accumulation, IPR policy, and growth
- **Chen, Rui** (G) – Banking crises and the performance of MIFs

Room 2222 – Nutrition

- **Woodie, Lauren** (G) – The influence of time-restricted feeding on diet-induced obesity, metabolic dysfunction and cognitive impairment
- **Tumwebaze, Joel** (G) – Evaluating the effectiveness of community gardening in reducing food insecurity and improving health in Chacraseca, Nicaragua
- **Ahmed, Bulbul** (G) – PDX (patient-derived xenograft) colon cancer tumor growth, morphology, and transcriptional profile in obese Rag1 mice

Room 2225 – Creative Scholarship

- **Rolling, Virginia** (G) – Wearable technology design development strategies

- **DuPuis, Jenny Leigh** (G) – Confluence
- **Michaelson, Dawn and Gascon, Sarah** (G) – Interdisciplinary Research: Improving Compression Garments for Women Athletes

Room 2227 – Mathematics and Computer Science

- **Schloss, Elizabeth** (UG) – Finding formulas for the number of pieces resulting from k $(n-1)$ -dimensional linear cuts on a unit ball in euclidean n -space
- **Kim, Doyon** (UG) – Minimal spanning forests on infinite graphs
- **Lindsey, Eddie** (UG) – Effects of competition-mediated dispersal on the persistence of a population

Room 2310 – Polymer and Fiber, Industrial Systems, and Aerospace Engineering

- **Teran-Somohano, Alejandro** (G) – The facility layout problem in healthcare: New models and methods
- **Joshi, Prutha** (G) – Preparation of slow release encapsulated pesticide/fertilizer
- **Ramesh Kumar, Tharikaa** (G) – Biglobal instability of compressible Taylor-Culick Solution in solid rocket motors

Room 2326 – Biomedical Sciences

- **Hightower, Harrison** (UG) – Establishing the neuroprotective effects of *Hibiscus sabdariffa*
- **Selby, Katherine** (UG) – The process of meta-analysis
- **Robinson, Anna** (UG) – Anti-carcinogenic and complementary effects of *Viscum album* canine glioblastoma cell lines

Morning Poster Session

Student Center Ballrooms

11:30 a.m. – 1:00 p.m.

Nursing (Section A)

1. **Barganier, Sharon** (G) – Examining telehealth monitoring for heart failure patients and the effects in hospital admissions and readmissions
2. **Lesniak, Andrea** (G) – Improving heart failure management with improved self-care behaviors
3. **Ledbetter, Laura** (G) – Improving self-management of heart failure through enhanced heart failure education
4. **Morris, Alicia** (G) – Multidisciplinary approach in diabetic patients
5. **Duke, Morgan** (G) – Cardiovascular disease: Risk factor reduction and prevention in women
6. **Gorman, Loren** (G) – Provider communication and education for reduction of antibiotics in upper respiratory infections (URI)
7. **McDonald, Whittni** (G) – Improving adult vaccination rates in primary care
8. **Lovvorn, Melissa** (G) – The importance of education on a healthy lifestyle for diabetic or at risk adolescents
9. **Leger, Ashton** (G) – Evidence-based practice project: elective induction of labor
10. **Scully, Lisa** (G) – Increasing breastfeeding rates

11. **Parker, Jessica** (G) – Skin-to-skin education among women of childbearing age
12. **Baker, Heather** (G) – Kangaroo care education
13. **Davis, Erin** (G) – Stethoscope decontamination
14. **Smith, Jenny** (G) – Diabetic education in perioperative services
15. **Litwiller, Kimberly** (G) – Improving teen diabetic education through parent and peer support
16. **Overby, Regan** (G) – Improve medication adherence in type II diabetes through teach back and pictorial image
17. **Santana, Grace** (G) – Smoking cessation for parents of children with asthma
18. **Wolff, Melissa** (G) – Diabetic self-management education in the primary care setting using the chronic care model
19. **McDonald, Brittni** (G) – Smoking cessation in people with type 2 diabetes mellitus
20. **Dixon, Kenyetta** (G) – Introducing mobile technology to adults with type II diabetic for self-management
21. **Parker, Magan** (G) – Treating diabetic foot ulcer infections with evidence based practice
22. **Mason, David** (G) – Uncomplicated skin and soft tissue infections
23. **Vuc, Iulian** (G) – Primary care management of heart failure patients: reducing 30-day readmission rate
24. **Kakish, R., Kitchens, C., Mokry, M., Robinson, A., Smith, F.** (UG) – Breastfeeding education outcomes
25. **Gandy, T., Godfrey, T., Lang, M., Costa, M.S.** (UG) – Nursing interventions for decreasing neonatal pain
26. **Cohen, K., Cowen, C., Smith, S., Vincent, E.** (UG) – Rub-a-dub-dub: keep newborns out of the tub
27. **Anglin, R., Berkebile, E., Pope, M., Sanchez, Z.** (UG) – Two preemies in a pod: the impact of co-bedding on premature twins
28. **Floyd, T., Hornsby, S., Owen, C., Speck, S.** (UG) – Glycemic control to combat complications in surgical patients with diabetes
29. **Ashley, S., Caton, H., Patel, M., Williams, R.** (UG) – Effects of animal -assisted therapy on quality of life
30. **Barnett, A., Fullerton, C., Guy, G., Price, C.** (UG) – Alarm fatigue among acute care nurses
31. **Deleon, A., Gay, G., Seay, A., Thompson, G.** (UG) – Effect of daily family visitation on nicu patient's length of stay
32. **Browning, E., Hess, H., Jackson, J., Lashley, T.** (UG) – Pre-procedure education for pediatric patients

Chemical Engineering (Section B)

#1-5 will present from 11:30 AM- 12:30 PM #6-8 will present from 12:00 PM- 1:00 PM

1. **Cullum, Richard** (G) – Screening methodologies for the discovery of targeted melanoma therapeutics
2. **Whitener, Ricky** (G) – Development and characterization of DNA aptamers targeting Small Cell Lung Cancer cells
3. **Minkler, Michael** (G) – Impact of microstructure on physical and optoelectronic properties of polyalkylthiophenes
4. **Dobyns, Breanna** (G) – Determination of solute permeabilities and membrane selectivities through copolymer membranes via *in situ* ATR FTIR spectroscopy

5. **Ellis, Morgan** (G) – Encapsulation of patient-derived pluripotent stem cells to study congenital heart disease
6. **Ray, Gannon** (UG) – Liposomes and gold nanoparticles: investigating and quantifying targeted drug delivery
7. **Head, Sarah** (UG) – 3D-printed molds to provide shape variability in hydrogel scaffolds for engineered human cardiac tissues
8. **Davis, Montoia** (UG) – Drug delivery mechanism of sulfathiazole from polyurethane films

Forestry and Wildlife Sciences (Section C)

#1-7 will present from 11:30 AM- 12:30 PM #8-15 will present from 12:00 PM- 1:00 PM

1. **Iglesias, Maria** (G) – Residual lignin and its effect on the rheological properties cellulose nanofibrils suspensions
2. **Tormanen, Aaron** (G) – A cost-effective method for canine heartworm surveillance
3. **Xu, Rongting** (G) – Global ammonia emissions from synthetic nitrogen fertilizer applications in agricultural systems: empirical and process-based estimates and uncertainty
4. **Daniel, Marissa** (G) – Utilization of Phone App Technology to Record Log Truck Movements
5. **Zikeli, Shelby** (G) – A methods comparison of ectoparasite quantification in white tailed deer (*Odocoileus virginianus*)
6. **Sanchez Diaz, Simon** (G) – Morphological study of the electrospinning process parameters over the structure of silk fibroin nonwoven performed at low concentrated solutions
7. **Gonnerman, Matthew** (G) – Estimating occupancy, density, and productivity of eastern wild turkeys in Alabama
8. **Mensah, John** (G) – Effect of *Leptographium terrebrantis* on tree physiology and growth of loblolly pine
9. **Zenas, Stephen** (G) – Factors influencing survival and capture-related mortality of Eastern wild turkeys in Alabama
10. **Duwadi, Sharijana** (G) – Study of soil microbial biomass and soil moisture in loblolly pine stand
11. **Finney, Micaela** (UG) – Feeding preferences of malaria vectors in Madagascar
12. **Kallenberg, Marie Christine** (UG) – Change in the lipid transport capacity of the liver and blood during reproduction in rats
13. **Long, Brandon** (UG) – A shell of a good time: quantifying box turtle detection probability in an urban landscape
14. **Miller, Madison** (UG) – Assessing the economic costs of managing invasive species across the United States
15. **Baxter, Tyler** (UG) – Evaluating the effectiveness of prescribed fire to restore longleaf-slash pine ecosystems

Drug Discovery and Pharmacy (Section D)

#1-7 will present from 11:30 AM- 12:30 PM #8-13 will present from 12:00 PM- 1:00 PM

1. **McLeroy, Jordan and Jesse** (UG) – Plants used for maternal and women's health by indigenous populations in Panama: a review
2. **McLendon, Lane** (UG) – Evaluation of inhibitory effect of Maca on CYP3A4 liver enzyme
3. **Anderson, Joseph** (UG) – Elucidate the mechanisms of action of the Tri-Fluoro-Methyl-Phenyl-Piperazine derivatives
4. **Bergstresser, Sydney** (UG) – Identifying *RECQL* breast cancer variants in an Alabama cohort

5. **Lynd, Tyler** (UG) – The comparative effects of honokiol and pioglitazone on mitochondrial function in an *in vitro* Alzheimer's disease model
6. **Adamek, Danielle** (UG) – Novel PPAR-gamma agonist improve pathology and memory deficits in a 3xTg-Ad mouse model of Alzheimer's disease
7. **Brazelle, Morgan** (UG) – Tracking of *Staphylococcus aureus* infections through bioluminescence and IVIS MiSpinner
8. **Wesolowski, Alec** (UG) – Multispectral opto-acoustic tomography provides a potential non-invasive method of tracking infections *in vivo*
9. **Jung, Da Sol** (UG) – Identification of phase I & phase II metabolites of maca
10. **Cimino, Addison** (UG) – Towards the synthesis of a functionalized cycloparaphenylene
11. **Wyss, Kevin** (UG) – Solid-state naphthylsalophen actinide complexes and rare thorium fluorescence
12. **Valentine, Kate** (UG) – Uranyl sensing using quinoxalinol salen-based ligand
13. **Boothe, Robert** (UG) – Nickel(II) complexes with quinol-containing ligands as redox-responsive PARACEST agent

Anatomy, Physiology, Animal Sciences, and Poultry Sciences (Section E)

#1-4 will present from 11:30 AM- 12:30 PM #5-8 will present from 12:00 PM- 1:00 PM

1. **Heslin, Ryan** (G) – Peripherally restricted viral mimic impairs learning and memory in a fear conditioning paradigm
2. **Hagerty, Samantha** (G) – Metal nanoparticles obtained from olfactory and respiratory epithelia enhance olfactory responses to odorants
3. **Fang, Han** (G) – Niacin improves gut function and microbiota composition in high-fat diet fed mice
4. **Escaro, Sarah** (G) – In vitro measurements of friction of intact equine articular cartilage against various surfaces
5. **Yuan, Jing** (G) – Survival of *Escherichia coli* O157:H7, *Salmonella* spp., and *Listeria monocytogenes* on the skin and sliced kiwifruit
6. **Turner, Stephanie** (G) – Changes in in vitro fermentative capacity of equine feces due to alteration of forage diet
7. **Wassel, Brooklyne** (G) – Solubilization of nonstructural carbohydrates as a function of soaking interval and water temperature in southern forages commonly fed to equids
8. **Rubio, Andrea** (G) – Effects of micro pellets during the starter period on performance and carcass characteristics of broilers

Educational Foundations (Section F)

#1-3 will present from 11:30 AM- 12:30 PM

1. **Finnegan, Vanessa** (G) – Do first year engineering students identify as future engineers? Explorations in occupational identity
2. **Benbaba, Asmaa** (G) – Building relationships, accessing resources and creating a context for community based learning in community garden
3. **Askia, Rashida** (G) – The effect of reduced barriers on remedial and college-level math success

Audiology (Section G)

#1-5 will present from 12:00 AM- 1:00 PM

1. **Armstrong, Molly** (G) – Characterization of noise levels and auditory function in students at auburn university football games
2. **Moore, Whitney** (G) – Effects of sound recover feature on speech intelligibility in noise in new hearing aid wearers
3. **Turnbough, Abby** (G) –The choice of musical instrument and its effects on auditory working memory and perception in adolescents
4. **Hanson, Meaghan** (G) – Pediatricians role and knowledge of universal newborn hearing screening, diagnosis, and protocols
5. **Bannon, Hannah** (G) – Does cooperation increase when music is used in the care of people who have dementia?

Civil Engineering and Building Science (Section H)

#1-7 will present from 11:30 AM- 12:30 PM #8-9 will present from 12:00 PM- 1:00 PM

1. **Tutu, Kenneth** (G) – Nondestructive determination of asphalt pavement crack type
2. **Tian, Shuting** (G) – The contact toxicity of essential oils to the house fly (*Musca domestica*)
3. **Xu, Dan** (G) – Impact of deceleration lane length on vehicles' speed and deceleration rates based on NDS data
4. **Atiquzzaman, Md** (G) – Geometric design characteristics of exit ramp terminals with confirmed wrong-way entries
5. **Gilbert, Claire** (G) – Applying radio frequency identification tags to improve personnel safety in dredging construction
6. **Bell, Matthew** (G) – The development of sustainable walls for a steel framed house for developing countries
7. **Huffines, Trenton** (G) – Implementing housing design and construction for communities in Panama
8. **Walsh, Mark** (G) – **WITHDRAWN**
9. **Martin, Douglas** (G) – An analysis of suitable materials for use in tiny home construction

Chemistry, Biochemistry, Animal Sciences (Section I)

#1-2 will present from 11:30 AM- 12:30 PM #3-4 will present from 12:00 PM- 1:00 PM

1. **Ariyathara, Isuru** (G) – Oxygen unveils the versatile personality of beryllium: The case of BeO_n=1,2,4
2. **Rajakaruna, Pradeepa** (G) – Oxidation of cysteine sulfinic acid by bis(1,4,7-triazacyclononane)Ni(III)
3. **McCormack, Kaylee** (UG) – 1-Thia-3,4-Diazolidine-2,5-dione polymers
4. **Willhelm, Gabby** (UG) – Evaluating developmental effects of a single follicle culture system and granulosa cell biopsies on fertilized cumulus-oocyte-complexes

Social Science, Anthropology, and Economics (Section J)

#1-3 will present from 12:00 PM- 1:00 PM

1. **Harrell, Crystal** (UG) – Reconstructing post-emancipation communities through the preservation of African American cemeteries
2. **Odabasi, Suzan** (G) – Alcohol consumption and crime: A panel study of South-eastern counties in the USA
3. **Rolling, Virginia** (G) – A cross-cultural perspective on additive manufacturing

Architecture, Planning, and Landscape Architecture/Environmental Design (Section K)

#1-6 will present from 11:30 AM- 12:30 PM #7-10 will present from 12:00 PM- 1:00 PM

1. **Shakya, Looja** (G) – The hydrological cycle
2. **Wang, Rui** (G) – Creating an urban park linking Chattahoochee River and downtown Columbus, GA
3. **Kaaur, Jaspuneet** (G) – SURGE: integrating edible plants in urban landscapes
4. **Hamrick, Rachel** (UG) – Challenging plaster’s intrinsic properties through analog and digital modeling
5. **Porter, Allison** (UG) – Urban Poverty
6. **Carlin, Margaret** (UG) – conGRADulations!
7. **Ossenfort, Christian** (UG) – Powering the future
8. **Souders, Lindsay** (UG) – Quantify the effects of ocean pollution
9. **Keel, Benjamin** (UG) – The lack of skilled labor and vocational education
10. **Vawter, Anna** (UG) – Increasing urban well-being through introduction of moveable chair

Biosystems Engineering (Section L)

#1-6 will present from 11:30 AM- 12:30 PM #7-12 will present from 12:00 PM- 1:00 PM

1. **Jiminez-Bonilla, Pablo** (G) – Study of the role of two alcohol dehydrogenase enzymes on bio butanol production in *Clostridium beijerinckii*
2. **Patil, Bivek** (G) – Hydrothermal liquefaction of lignin for production of biofuels and chemicals
3. **Shakya, Rajdeep** (G) – Catalytic upgrading of bio-oil produced from hydrothermal liquefaction of algae in mixtures of supercritical carbon dioxide and hydrogen
4. **Rubisch, Mary Catherine** (G) – Effect of guar on removal and treatment of catfish waste
5. **Wang, Pixiang** (G) – Biomass pretreatment with acetic acid for acetone-butanol-ethanol (ABE) fermentation
6. **Litton, Garrod** (G) – Benthic algae cultivation for recovery of nutrients from aquaponics wastewater
7. **K C, Sanjeev** (G) – Understanding the effect of catalytic pyrolysis bio-oil produced using CaO during hydrotreatment
8. **Sajib, Sourov Kar** (G) – Biomass derived nitrogen-doped hierarchical porous activated carbons for lithium-sulfur battery
9. **Li, Kaiyan** (UG) – Investigating the impacts of Bacillus on green algae metabolism
10. **Granger, Craig** (UG) – How stream restoration affects in-stream ecological metabolic activity
11. **Bankston, Elizabeth** (UG) – Following the mass flow of nitrogen throughout an aquaponics system
12. **King, Benjamin** (UG) – Comparing the floodplain hydrology of a recently restored stream bank to a natural, undisturbed, floodplain

Psychology (Section M)

#1-5 will present from 11:30 AM- 12:30 PM #6-12 will present from 12:00 PM- 1:00 PM

1. **Travis, Allison** (UG) – The effect of drawing on information consolidation and stress reduction
2. **Britton, Erica** (UG) – Work-life enrichment and work outcomes: A meta-analysis
3. **Bovee, Meredith** (UG) – Associations of trauma, victimization patterns, and aggression during adolescence

4. **Slife, Sarah** (UG) – Affective states and role overload: The moderating effect of integration
5. **White, Shelby** (UG) – Variations in disclosure experiences among young adults exposed to domestic violence
6. **Nuhu, Nadratu** (G) – Functional behavior assessment of parents' nonadherence to behavior intervention plans
7. **Young, Margaret** (G) – Comparison of quality of life ratings in young adults with ADHD across various chronic conditions
8. **Paneerselvam, Bavani** (G) – Disruption of the relational and item-specific processing supports the negative outcomes of multiple-choice testing with additional lures
9. **Haygood, Sarah** (G) – Effects of intensity and spacing of problem behavior on levels of treatment integrity
10. **Lorys, Anna** (G) – The effects of maximizing decision styles on perceptions of work-life balance
11. **Ritterbush, Elizabeth** (G) – The dark side of ethical decision making
12. **May, Viola** (G) – An examination of job satisfaction and work-life balance among racial minority faculty in higher education

Entomology and Horticulture (Section N)

#1-3 will present from 11:30 AM- 12:30 PM #4-10 will present from 12:00 PM- 1:00 PM

1. **Zhang, Xinmi** (G) – Investigating the vector(s) of epizootic hemorrhagic disease virus in Alabama
2. **Tian, Yuexun** (G) – The contact toxicity of essential oils to the house fly (*Musca domestica*)
3. **Ajayi, Olufemi** (G) – Comparative water relations and desiccation tolerance of four invasive ant species
4. **Chen, Hongyu** (G) – The outer membrane protein MopB is associated with biofilm formation, twitching motility and virulence of the plant pathogen *Xylella fastidiosa*
5. **Hassan, Mohammad** (G) – Efficiency of pectin supplement in root colonization and plant growth-promotion of soybean plants by *Bacillus velezensis*
6. **Morawo, Tolulope** (G) – Only a fraction of host-associated odor blend mediates attraction in parasitoids
7. **Till, Stephen** (G) – An integrated approach to improving corn plant health in *Meloidogyne incognita* infested fields with nematicides, plant growth regulators, and starter fertilizers
8. **Dyer, David** (G) – Biological pathogen of *Heterodera glycines*, *Rotylenchulus reniformis*, and *Meloidogyne incognita*
9. **Xie, Lingbo** (G) – Impact of harvest maturity on consumer preference, fruit quality, and postharvest longevity of two kiwifruit cultivars (*Actinidia chinensis* Planch.)
10. **Kargar, Mahnaz** (G) – Carotenoid accumulation in peel and pulp tissues of genomically diverse banana cultivars in Southeastern United States

Kinesiology (Section O)

#1-3 will present from 11:30 AM- 12:30 PM #4-7 will present from 12:00 PM- 1:00 PM

1. **Rhoades, Jence** (G) – Examining a motor learning paradigm: To teach or not to teach
2. **Dyke, Ford** (G) – Effects of 'green' stimuli neurocognitive function: An ERP study
3. **Gordon, Sarah** (UG) – The effect of whole body vibration on stress fracture healing
4. **Camp, Peyton** (UG) – Understanding engagement and motivation in learning a complex motor skill
5. **Clardy, Kathryn** (UG) – Kinematics of youth baseball pitching and football passing

6. **Meagher, Mallory** (UG) – Cardioprotection of HIF-1 Frataxin against ischemia reperfusion injury in diabetic myocardium
7. **Gilmer, Gabrielle** (UG) – Influence of Postural Compression Garment on Scapular Muscle Activation

Oral Research Presentations – Afternoon Session

Student Center Meeting Rooms

1:00 – 1:45 p.m.

Room 2216 – Physics

- **Vaughan, John** (G) – Generation of the first attosecond pulses in the state of Alabama
- **Kring, James** (G) – Impurity studies in fusion research on Wendelstein 7-X
- **Johnson, Curtis** (G) – Improving spectral diagnosis of erosion during plasma material interaction to assess the potential of fusion energy as a future energy source

Room 2218 – Psychology

- **Yanes, Julio** (G) – Dissociable meta-analytic networks contribute to post-traumatic stress disorder (PTSD)
- **Luna, Odessa** (G) – Evaluating the effectiveness of and preference for peer vs. supervisor feedback
- **Lazarowski, Lucia** (G) – Responsiveness to humans generalizes across problem solving in dogs

Room 2222 – Poultry Sciences

- **Liao, Chao** (G) – Evaluation of microbiome present in bagged Spring mix salad
- **Johnson, Meredith** (G) – Carcass aging as a potential solution for tough meat quality issue in modern broilers
- **Qiao, Mingyu** (G) – Modifying food contact surfaces with N-Halamine for antimicrobial properties

Room 2225 – Humanities and Political Science

- **Zinner, Max** (G) – A spirit that is not afraid: Gay and lesbian rights at Auburn University 1990-1991
- **Crayton, Mac-Jane** (G) – Gender in leadership in non-profits: Female leadership deficit in nonprofit sector

Room 2227 – Forestry and Wildlife Sciences and Geosciences

- **Cole, Andrea** (G) – Competitiveness of *Amylostereum* spp. fungi against *Leptographium* spp. fungi
- **Clements, Allen** (G) – Geochemical analysis of the karstic Bobcat Cave watershed: A case study in Northern Alabama
- **Haines, Angelina** (G) – Factors influencing fire ant prevalence and nest predation on grassland birds in a fire-mediated ecosystem

Room 2310 – Kinesiology and Nutrition

- **Gascon, Sarah** (G) – Biomechanical influences of a postural compression garment on scapular positioning
- **Mukigi, Dorcas** (G) – Prevalence of food insecurity among students enrolled at Auburn University, Alabama
- **Wyatt, Chris** (G) – Diabetic dyslipidemia: Efficacy of diabetes self-management education and medical nutrition therapy

Room 2326 – Civil Engineering

- **Wang, Jin** (G) – In-depth investigation of wrong-way crashes on divided highways in Alabama using Haddon Matrix and field observations
- **Xue, Chennan** (G) – Evaluate in-cab sound and vibration generated by directional rumble strips for deterring wrong-way freeway entries
- **Tankasala, Aravind** (G) – Investigating the behavior of lightweight aggregates in mass concrete

2:00 – 2:45 p.m.

Room 2216 – Fisheries

- **Wang, Xiaozhu** (G) – Multiple across-strain and within-strain QTL suggest highly complex genetic architecture for hypoxia tolerance in channel catfish
- **Bart, Ryan** (G) – Distribution and abundance of pelagic fishes in Southeastern US reservoirs containing blueback herring
- **Odin, Ramjie** (G) – Identifying elite parents of channel catfish (*Ictalurus punctatus*) female x blue catfish (*I. furcatus*) male F1 hybrid progeny with superior performance traits using combining ability analysis

Room 2218 – Crop, Soil, and Environmental Science

- **Duan, Yanan** (G) – Enhancing lake inflow forecasts in the Alabama-Coosa-Tallapoosa (ACT) River Basin using the North American multi-model ensemble
- **Lin, Yaru** (G) – Influence of poultry litter and double cropping on soybean yield
- **Jiang, Tao** (G) – Association mapping of SSR markers to sweet, bitter, and roasted peanut sensory attributes in cultivated peanut

Room 2222 – Chemical Engineering

- **Finklea, Ferdous** (G) – Manufacturing functional engineered cardiac tissue spheroids using a custom microfluidic system
- **Kelly, Jessica** (G) – Evaluation of enzyme-loaded nano-polymerosome treatment on neurodegenerative GM1 gangliosidosis
- **Hand, William** (G) – Soy protein substitution in phenol formaldehyde adhesive used in oriented strand board

Room 2225 – Pathobiology and Animal Sciences

- **Eldemery, Fatma** (G) – Improved protection against infectious bronchitis virus by including S2 ectodomain in subunit vaccine
- **Read, Casey** (G) – Analysis of Cx43 gap junctional coupling and ATRA signalling and their relationship to embryo development in *Bos Taurus*
- **Yuan, Jing** (G) – Comparison of different enumeration protocols for indicator microorganisms in water and sediment

Room 2227 – Industrial and Systems Engineering

- **Ahady Dolatsara, Hamidreza (G)** – Developing a dynamic tool for transplant survival analysis
- **Sedighi Maman, Zahra (G)** – A data-driven approach to modeling physical fatigue in the workplace using wearable sensors
- **Kim, Kyongsun (G)** – Pricing real options premium based on the Conditional Value at Risk (CVaR) concept

Room 2310 – Chemistry, Biomedical Sciences, and Veterinary Medicine

- **Gohlke, Madison (UG)** – Comparison of a point-of-care glucometer (POCG) and an automated biochemical analyzer to measure glucose concentrations in whole blood, serum, and plasma from porcine blood samples
- **Singletary, Melissa (G)** – Polyethylene coated of zinc nanoparticles maintain capable of enhanced olfaction
- **Hardy, Emily (G)** – Pyridine containing soft donor ligands for molecular recognition of uranyl: Nuclear contamination detection via color change

Room 2326 – Consumer and Design Sciences

- **Rashid, Md Sanuwar (G)** – Country of origin and fair trade message: The impact of hangtag information on brand evaluation
- **Levinson, Emily (G)** – Preparing for specialized practice in design and wellness: A model curriculum
- **Rolling, Virginia (G)** – Millennials' impression of luxury goods manufactured using recycle materials

3:00 – 3:45 p.m.

Room 2216 – Fisheries

- **Gosh, Kamal (G)** – Analyzing the economic impact of growth variability on the channel-blue hybrid catfish production
- **Tucker, Rebecca (G)** – Warming temperatures lead to respiratory stress and brood expulsion by gravid mussels
- **Novriadi, Romi (G)** – Improvement of soy based diet efficiency for Florida pompano *Trachinotus carolinus* L by using combination of advance soybean and squid products

Room 2218 – Hospitality Management

- **Chen, Han (G)** – Econometric modeling of the U.S. hotel industry revenue
- **Bernard, Shaniel (G)** – Consequences of hotel green washing: The moderating effect of customer's previous experience
- **Brown, Katie (UG)** – Researching food insecurity at Auburn University

Room 2225 – Drug Discovery and Development

- **Chandler, Madison (G)** – Insights from gene panel screening using a newly established Alabama cancer cohort
- **Porter, Haley (G)** – Improved retention of nepafenac on the ocular surface for sustained drug delivery
- **Watkins, Anna (G)** – Sequencing canines with mammary tumours to identify hereditary breast cancer genetic risk variants

Room 2227 – Civil Engineering

- **Ayers, Meredith** (UG) – Mineralogy determination via three-dimensional image analysis
- **Xie, Zhaoxing** (G) – Evaluation of foamed warm mix asphalt with reclaimed asphalt pavement: Field and laboratory experiments
- **Wu, Hongyang** (G) – Effect of vertical accelerations on steel frame structures

Room 2310 – Chemistry and Biochemistry

- **Brown, Matthew** (UG) – Elucidation of the heme d₁ biosynthetic pathway in *Paracoccus denitrificans*
- **Fujihashi, Ayaka** (UG) – Evaluation of the hippocampal associated neurotoxic effects of prenatal alcohol and nicotine exposure in rodents
- **Bartlett, Abigail** (UG) – Evaluation of substrate specificity in the two-component alkanesulfonate monooxygenase system

Room 2326 – Electrical Engineering

- **Yelamanchili, Bhargav** (G) – Adhesion between polyimide films and thin metal films
- **Prather, Craig** (G) – Design of a novel airborne atmospheric sensor
- **Smith, James** (UG) – Improvements for special neural network architectures

4:00 – 4:45 p.m.

Room 2216 – Forestry and Wildlife/Biological Sciences

- **Sharma Dangal, Shree Ram** (G) – Global impacts of grazing on vegetation and soil organic carbon during 1901-2010: A process-based modelling study
- **Lewis, Alexandra** (G) – Beavers are engineers; trees are not: The dam truth
- **Weber, Jennifer** (G) – Morphology of introduced populations of *Orconectes virilis* (Decapoda, Cambaridae) is dependent on habitat

Room 2218 – Nutrition, Dietetics, and Hospitality Management

- **Chen, Han** (G) – Investigating the influence of workplace fun and humor on hospitality employees' selected work outcomes
- **Griffin, Jamie** (G) – Effectiveness of *My Quest*, an intervention using text messaging to improve dietary and physical activity behaviors and promote weight loss in low-income women in Alabama
- **Salazar, Maria** (G) – A multisite study demonstrating the efficacy of diabetes self-management education and medical nutrition therapy in the management of Type 2 diabetes in Alabama

Room 2222 – Biosystems Engineering

- **Harun, Khalida** (G) – Comparative studies of Ru-doped ZSM-5 and activated carbon for hydrogen production by thermocatalytic decomposition of methane
- **Zhang, Zhongtian** (G) – *In situ* esterification and extractive fermentation for butyl butyrate production with *Clostridium tyrobutyricum*
- **Dong, Sheng** (G) – Metabolic engineering of *Bacillus* and *Clostridium* for 2-butanol production

Room 2227 – Chemical Engineering

- **Kelly, Alexander** (G) – Nanoparticle supported membranes for drug delivery
- **Noor, Matthew** (G) – Rheo-optical investigation of liquid crystalline double-stranded DNA and single walled carbon nanotube dispersions

- **Hansford, Andre** (UG) – The effects of pH on aqueous cellulose nanocrystal dispersions' rheology and phase behavior

Room 2310 – Drug Discovery and Development

- **Spina, Stephanie** (UG) – Sequencing miRNA clusters for the identification of BC genetic risk variant
- **Shepp, Kasey** (UG) – The effect of rare variants of hydroxy-carboxylic acid receptors on hereditary breast cancers
- **Fahoury, Eddie** (UG)– Anti-inflammatory and immunomodulatory activities of *Scutellaria lateriflora*

Afternoon Poster Session

4:30 – 6:00 p.m.

Student Center Ballroom

Physics (Section P)

#1-4 will present from 4:30 PM- 5:30 PM #5-6 will present from 5:00 PM- 6:00 PM

1. **Wang, Martin** (UG) – Role of carotenoids as antioxidants in *Tigriopus californicus*
2. **Harrison, Geoffrey** (UG) – A code to retrieve the three-dimensional photoelectron emission from a two-dimensional image
3. **Kish, Ayden** (UG) – Dust particle circulation and vortices in a dc glow discharge dusty plasma
4. **Hidle, Brock** (UG) – Development of Frequency Resolved Optical Gating (FROG) technique for characterization of femtosecond pulses
5. **Lopez Ortiz, Omar** (G) – High-beta analytic equilibria in circular, elliptical and d-shaped large aspect ratio axisymmetric configurations with poloidal and toroidal flows
6. **Jayawardena, Asanka** (G) – Development of 4H-SiC trench electronic device

Nursing (Section Q)

1. **Clemons, DeLana** (G) – Preventing the progression of pre diabetes to diabetes
2. **Kilcrease, Melissa** (G) – Home-based cardiac rehabilitation: Determining feasibility among rural residents
3. **Lawson, Stephanie** (G) – Decreasing cardiovascular disease risk factors with family-based interventions
4. **Robinson, Cynthia** (G) – Medication adherence in patients with bipolar disorder
5. **Lemon, Megan** (G) – Strategies for lifestyle modifications for blood pressure control
6. **Popp, Chelsea** (G) – Safeguards to reduce polypharmacy in the older adult
7. **Wilson, Bridget** (G) – Diabetes education: Producing quality outcomes through knowledge and self-management
8. **Skaug, Shannon** (G) – Yoga as a complementary therapy for type II diabetes management
9. **Goodson, Amanda** (G) – Tobacco cessation: improving the outcomes
10. **Young, Brian** (G) – Preventing readmission in patients with congestive heart failure

11. **Crane, Adrienne** (G) – Improving diabetic outcomes through a peer coaching telephone communication intervention in the primary care setting
12. **Jones, Brandi** (G) – Increasing venous thromboembolism through education
13. **Faison, Sarah** (G) – The use of honey-impregnated dressings in the treatment of chronic wounds
14. **Barksdale, Whittnye** (G) – Promoting antibiotic stewardship in pediatric patients
15. **Morris, Mary** (G) – Educating nurses on the Braden Q scale
16. **Walker, Brittany** (G) – Improving implementation by healthcare professionals: asthma action plans
17. **Dean, Mollie** (G) – Effects of exercise on dyslipidemia
18. **Jones, Felisha** (G) – Pain management in the elderly: An alternative approach
19. **Hamlett, LaKisha** (G) – Fall prevention in the elderly 65 years of age and older in the long term care setting
20. **Burch, Mary Margaret** (G) – Health coaching as an intervention for Type 2 diabetic patients
21. **Wilson, Douglas** (G) – Rapid Assessment of Atrial Fibrillation Self-Management (RAAFSM)
22. **Childs, Mindy** (G) – Preventing patients with pre-diabetes from developing diabetes
23. **Hughey, Tracie** (G) – Proactive preparation to prevent PTSD in paramedics
24. **Harlacher, Melissa** (G) – Nonpharmacological strategies versus opioid treatment of non-cancer chronic pain
25. **Williams, Rachel** (G) – Utilizing a screening tool to improve depression outcomes
26. **Hahn, L.D., Lewis, A., Newman, S., Sikes, A.** (UG) – Bedside shift report and patient satisfaction
27. **Barham, A., Dunivant, H., Mitchell, M., O'Hara, H.** (UG) – Effects of polyethylene occlusive wrappings on thermoregulation in low weight premature infants
28. **Cowen, E., Leahy, M., Nikolai, A., Rebois, K.** (UG) – Chew on this: Relationship between gum chewing and postoperative ileus
29. **Budny, E., McCurdy, J., Minor, K., Wertymer, N.** (UG) – Prenatal versus postnatal breastfeeding education
30. **Barber, A., Gartner, H., Robertson, R., Tinsley, A.** (UG) – Effects of acupuncture on chronic pain
31. **Kelley, A., Miller, J., Watts, G., Weingart, P.** (UG) – Breastfeeding effect on postpartum depression
32. **Hicks, J., Merrell, K., Pollard, K., Stanfield, H.** (UG) – Telehealth: Reducing readmission rates in patients with heart failure
33. **Brouillette, C., Hardiman, S., Slaughter R., Stickland, A.** (UG) – Music therapy and patients with dementia
34. **Allen, M.A., Barnett, J., Diliberto, M., Murphy, H.** (UG) – A comparison of pediatric pain assessment tools

Chemical Engineering (Section R)

#1-6 will present from 4:30 PM- 5:30 PM #7-12 will present from 5:00 PM- 6:00 PM

1. **Byers, Beth** (UG) – Nanoparticle targeted testosterone degradation for the treatment of androgen-dependent prostate cancer
2. **Goel, Nidhi** (UG) – Drug testing and immunostaining of in vitro 3-dimensional breast cancer model
3. **Crowley, Anna** (UG) – Immunostaining, analyzing, and encapsulating endothelial progenitor cells in order to determine appropriate microsphere parameters and blood vessel proliferation due to cell presence

4. **Preisser, Matthew** (UG) – Anaerobic digestion of poultry litter for biogas production
5. **Harris, Patrick** (UG) – Optimization of solid and mesoporous silica nanoparticles for drug delivery
6. **Hall, David** (UG) – Controlling size and surface properties of PLGA nanoparticles for vaccine delivery system
7. **Harris, Bryana** (UG) – Contraction analysis of human induced pluripotent stem cell derived cardiomyocytes
8. **Habbit, Nicole** (G) – Three-dimensional engineered prostatic tumor model for in vitro recapitulation of the native tumor microenvironment
9. **Hassani, Iman** (G) – Three-dimensional tissue-engineered models of patient-derived colorectal cancer
10. **Zhao, Rong** (G) – Effect of CdSe quantum confinement on charge transfer kinetics in solar-driven hydrogen production from urea
11. **Mondal, Animesh** (G) – Study of charge transfer dynamics in spray deposited Cu₂ZnSns₄ (czts) photoelectrodes for performance improvement
12. **Harris, Chelsea** (G) – Treatment of chronic pain using targeted nanoparticles

Architecture and Consumer Design (Section S)

#1-7 will present from 4:30 PM- 5:30 PM #8-11 will present from 5:00 PM- 6:00 PM

1. **Vawter, Anna** (UG) – Depicting city legibility
2. **Rohrer, Lindsey** (UG) – The purpose-driven environment: a new perspective on aging in America
3. **Fatzinger, Elizabeth** (UG) – Environmental benefits of care facilities for people with dementia
4. **Rolling, Virginia** (G) – Assessing subtractive and additive jewelry manufacturing
5. **Lee, Jong Geun** (G) – Investigating consumer loyalty to apparel and beauty subscription box retailers
6. **Merlino, Suzanne** (G) – sit-IT: charging furniture stations on college campuses
7. **Clark, Jeremy** (UG) – Weaving societal pillars into preventative care
8. **Heapy, Mary** (UG) – The impact of interior design on assisted living residents with Alzheimer's Disease
9. **Mitchell, Sarah** (UG) – Designing a better care facility: incorporating the resident, staff, and family Needs
10. **Young, Laura** (UG) – Wellness design in Alzheimer's disease
11. **Hughes, Hayley** (UG) – University senior living facility

Psychology (Section T)

#1-7 will present from 4:30 PM- 5:30 PM #8-13 will present from 5:00 PM- 6:00 PM

1. **Boomhower, Steven** (G) – Adolescent methylmercury and d-amphetamine exposure alter sensitivity to monoamine uptake inhibitors in adulthood
2. **Kirby, Lauren** (G) – Impacts of brief in-class mindfulness training sessions on trait mindfulness and stress response in an undergraduate psychology course
3. **Spitzer, Elizabeth** (G) – Exploring the temporal relationship between insomnia symptoms, depressive symptoms, and suicidal ideation
4. **Falligant, John** (G) – Delay and probability discounting of legal outcomes
5. **Hartman, Paige** (G) – The relationship between decision making behavior and the work-life interface

6. **Schaefer, Megan** (G) – The effects of yoga on quality of life in pediatric chronic illness populations: A systematic review
7. **Whiteman, Sarah** (G) – Trauma type and suicidal ideation: The mediating effect of cognitive distortion
8. **Kelner, Will** (UG) – Perceptions of mental illness in college students
9. **McKinnell, Zachary** (UG) – Common neural networks in alcoholism and depression
10. **Stiles, Sae'Breon** (UG) – Mental health knowledge acquisition in under-represented communities: The influence of promoters' occupational background
11. **Bradley, Sheyenne** (UG) – Victimization patterns and emotional and behavioural dysregulation in adolescence
12. **Klumpp, Kendall** (UG) – The effect of employment on students' grades
13. **Roby, Cassidy** (UG) – Mental health integration through accountable care organizations

Electrical, Computer, Mechanical, Polymer, and Software Engineering (Section U)

#1-9 will present from 4:30 PM- 5:30 PM #10-21 will present from 5:00 PM- 6:00 PM

1. **Zou, Simin** (G) – Influence of fatigue and bending strain on critical currents of niobium superconducting flexible cables containing Ti and Cu interfacial layers
2. **Gupta, Vaibhav** (G) – Barrier layers to protect Nb superconductivity in thin film superconducting flexible cables
3. **Cheng, Ran** (G) – Memristor-based spiking neural network for pattern recognition
4. **Goteti, Uday** (G) – Superconducting logic families based on quantum phase-slip junctions
5. **Bian, Yuan** (G) – An efficient data-driven algorithm for retrospective motion correction in MRI
6. **Zhou, Huanyi** (G) – A novel and economic approach to produce CT-like image
7. **Fu, Yimin** (G) – Surface reconstruction based on plenoptic image with convolution-based iterative algorithm
8. **Taneja, Shubhi** (G) – Thermal modeling and scheduling of high performance computing clusters
9. **Shaik, Shehenaz** (G) – Service management in fog computing
10. **Li, Guorui** (G) – IW2K Android application for young kids
11. **Zhu, Yan** (G) – Dendrimer-encapsulated ultra-small porous $\text{MnO}_2\text{-Fe}_3\text{O}_4$ nanosphere for supercapacitor
12. **Sun, Yuzhe** (G) – Light activated drug release system based on a natural nanotube
13. **He, Jiacheng** (G) – Nanodiamond plasmonic biosensor for ultrasensitive, real-time cytokine detection
14. **Alizdeh, Nima** (G) – Thermo-mechanical characterization of acrylic-polyurethane based interpenetrating polymer network
15. **Cook, John** (UG) – Naturalistic pen-based data interaction
16. **Stubbs, Daniel** (UG) – Airfoil analysis using smoothed particle hydrodynamics
17. **Brannon, William** (UG) – Rapid prototyping of electronics cooling nozzle arrays
18. **Hofer, Ethan** (UG) – Controlling the ion distribution in electroactive polymers for more dynamic actuation response
19. **Edge, Carson** (G) – Development of a rainwater harvesting model for broiler farms to estimate on-farm storage needs
20. **Cao, Li** (G) – Effects of different movement postures due to breathing zone restrictions on physiological demand during evacuation
21. **Yang, Wen** (G) – Nanoplasmon ruler for visualizing how cells "talk"

Social Science, Political Sciences, and Business (Section V)

#1-4 will present from 4:30 PM- 5:30 PM #5-7 will present from 5:00 PM- 6:00 PM

1. **Harrell, Crystal** (UG) – The effect of contact and disability recognition on qualification ratings
2. **Howard, Taylor** (UG) – Water “you doing?” comparing the intergovernmental responses to the gold king mine and TVA coal ash spills
3. **Fields, Trey** (UG) – Water cost analysis and future projections for water demand in Auburn, AL
4. **Rolling, Virginia** (G) – What does your smartphone case color say about you?
5. **Nelson, Steven** (G) – Fueling the boom or smothering it? Examining fracking policy differences across the States
6. **Lee, Joonghee** (G) – An inquiry into knowledge management strategies, transformational leadership, their effects on individual creativity, and the mediating role of knowledge sharing
7. **Stephens, Natalie** (UG) – Teaching spatial visualization in chemistry

Biological Sciences (Section W)

#1-6 will present from 4:30 PM- 5:30 PM #7-10 will present from 5:00 PM- 6:00 PM

1. **Wang, Philip** (UG) – Role of carotenoids as antioxidants in *Tigriopus californicus*
2. **Lloyd, Robin** (UG) – Consequences of maternal nest choice in invasive red-eared sliders
3. **Hulbert, Austin** (UG) – Thermoregulatory patterns of non-native *Anolis sagrei* in a novel thermal environment
4. **Firing, Morgan** (UG) – Exploratory-boldness behavior of juvenile anemonefish (*Amphiprion ocellaris*) and effects on their social hierarchy
5. **Owens, Llandress** (UG) – Are mosquitoes that are competent vectors for heartworm more attracted to dogs infected with heartworm?
6. **Bonner, Drew** (UG) – Knock-out of obesity-related genes in zebrafish (*Danio rerio*) using the CRISPR-Cas9 system
7. **Lynn, Jacob** (UG) – Effect of prenatal cannabinoid exposure on learning and memory
8. **Muller, Reka** (UG) – Central nervous system and organ tissue analysis after fourth ventricle AAV-gene therapy for feline GM1 gangliosidosis
9. **Morgan, Marlee** (UG) – *In vivo* effects of deepwater horizon crude oil and corexit dispersant on rodent hematological markers
10. **Crump, Bailee Ryan** (UG) – Nicotine exposure enhances the neurotoxic effects in the cerebellum of a rodent model of fetal alcohol spectrum disorder

Biological Sciences, Pathobiology, Kinesiology (Section X)

#1-6 will present from 4:30 PM- 5:30 PM #7-10 will present from 5:00 PM- 6:00 PM

1. **Mann, Elise** (UG) – Time course of DPP-IV, CD26+ T-cells and IL-6 following a DOMS protocol in college aged participants
2. **Willhelm, Gabby** (UG) – Comparing a Novel Technique for Tribological Analysis of Equine Articular Cartilage to Glass and Metal Models
3. **Westbrook, Katherine** (UG) – Handwriting without tears
4. **Bynum, Ryan** (UG) – The effects of insulin signaling on sexually dimorphic gene expression in head tissues

5. **Johnson, Katelyn** (UG) – Effects of the cannabinoid-1 receptor agonist WIN 55,212-2 on reversal learning in adolescent mice
6. **Borders, Jared** (UG) – The impact of heat tolerance on the maintenance of sexual characteristics
7. **Kloske, Courtney** (UG) – Functional studies of genes transcriptionally regulated by calcium in *Xylella Fastidosa*
8. **Chumley, Mary** (UG) – Renal cystic disease progression monitoring over time in a new animal model of polycystic kidney disease
9. **Shrader, Stephanie** (G) – Phenotypic characterization of Labradoodle dystrophinopathy
10. **Sajib, Abdul Mohin** (G) – Evaluation of the Cancer-Specific Functionality of Canine Promoters to Expand Expression-Targeted Gene Therapy in Canine tumors

Human Development and Family Studies (Section Y)

#1-5 will present from 4:30 PM- 5:30 PM #6-11 will present from 5:00 PM- 6:00 PM

1. **Hinten, Brittany** (G) – Understanding the link between internalizing problems and risky decisions: An fMRI pilot study
2. **Richardson, Kourtney and Starks, Victoria** (G) – Associations between perceived racial discrimination and objectively measured sleep characteristics among college students
3. **Tran, Cecilia** (G) – *Good Choice* healthier retail initiative: increasing access and appeal of healthy items in rural Alabama
4. **McConnell, Leanna** (G) – Peer victimization and adolescent adjustment: Do personal orientations play a role?
5. **Gillis, Brian** (G) – Longitudinal influences of positive adaptation and sleep on internalizing symptoms in children
6. **Curtis, David** (G) – Sleep as a mediator of racial disparities in cardiometabolic disease risk: The Coronary Artery Risk Development in Young Adults (CARDIA) Study
7. **Hartwick, Olivia** (G) – Relations between scripted secure base attachment representations and social competence, temperament, and executive function
8. **VanDenBerg, Carlynn** (G) – Types and effects of parental advice about peer victimization
9. **Forchielli, Nicole** (UG) – Assessing quality and satisfaction of Meals on Wheels (MOW) program in Lee County, Alabama
10. **Homandberg, Lydia and Aldana, Isabella** (UG) – Body size perceptions: Implications for racial disparities in BMI

Pharmacy and Drug Discovery (Section Z)

#1-6 will present from 4:30 PM- 5:30 PM #7-16 will present from 5:00 PM- 6:00 PM

1. **Wang, Chuan** (G) – Paradoxical upregulation of macrophage CXCR7 by myeloid-specific gene editing in mice
2. **Rants'o, Thankho** (G) – Assessment of the potential of açai-anticancer drug interactions through CYP3A4 inhibition
3. **Alqurashi, Thamer** (G) – Evidence of CXCR7 negative signaling to the ERK1/2 pathway in human coronary artery smooth muscle cells
4. **Majrashi, Mohammed** (G) – "Designer Drugs" Are they a future potential threat towards increasing the risk for movement and mental disorders in the society
5. **Desai, Darshini** (G) – *Scutellaria lateriflora* protects against endogenous neurotoxin-induced neurotoxicity

6. **Al Saqr, Ahmed** (G) – Evaluation of diacetyl boldine loaded microemulsion formulations for topical drug delivery: Preparation, characterization, *in vitro* release and cytotoxicity studies
7. **Govindarajulu, Manoj** (G) – Novel PPAR-gamma agonist improve pathology and memory deficits in a 3xTg-Ad mouse model of Alzheimer’s disease
8. **Bloemer, Jenna** (G) – Mice lacking adiponectin display cognitive deficits and impaired synaptic plasticity
9. **Setti, Sharay** (G) – Effects of P301L tau expression on spatial memory in a rodent model of Alzheimer’s disease
10. **Pinky, Priyanka** (G) – Prenatally cannabinoid exposed offspring display impaired synaptic plasticity and cognitive deficits
11. **Alhowail, Ahmad** (G) – Doxorubicin alters mechanisms of memory formation in *ex vivo* and *in vivo* models of Chemobrain
12. **Smith, Mary** (G) – Tracking melanoma by MSOT
13. **Milton, Amber** (G) – Screening of FDA compounds for MPO inhibition
14. **Almaghrabi, Mohammed** (G) – Comparing the dopaminergic neurotoxic effects of piperazine derivatives
15. **Aldawsari, Mohammed** (G) – Pharmacokinetic evaluation of a novel buccal midazolam gel in healthy dogs

Agriculture/Crop&Soil and Geosciences (Section AA)

#1-3 will present from 4:30 PM- 5:30 PM #4-5 will present from 5:00 PM- 6:00 PM

1. **Lin, Yaru** (G) – Evaluating the influence of plant growth-promoting rhizobacteria as a bio-fertilizer under different fertility sources
2. **Medina, Hanoi** (G) – Forecasting medium-range reference evapotranspiration for the continental U.S. using the TIGGE multi-model ensembles
3. **Zhang, Hui** (G) – Complete plastid genome sequence of Goosegrass (*Eleusine indica*) and comparison with other Poaceae
4. **Cofer, Trevor** (UG) – Fresh market tomato yield and quality as affected by potassium rates and source
5. **Barkley, Morgan** (UG) – Field-structural investigations of Engeløya-Steigen and their implications for Caledonian tectonic evolution, North Norway

Fisheries (Section BB)

#1-3 will present from 4:30 PM- 5:30 PM #4-5 will present from 5:00 PM- 6:00 PM

1. **Li, Ning** (G) – GWAS analysis revealed the association of genes for muscle and bone development with growth in catfish
2. **Aceves, Alison** (G) – Reactive oxygen production of blue crab hemocytes responds to probiotic and pathogenic *Vibrio* spp.
3. **Wang, Xiaozhu** (G) – Identification of NF- κ B related genes in channel catfish and their expression profiles in mucosal tissues after columnaris bacterial infection
4. **Abass, Nermeen** (G) – How can we feed our growing planet?
5. **Leasor, Khrystyna** (G) – *Origanum vulgare* as an alternative treatment for aquatic pathogens

Health Outcomes (Section CC)

#1-3 will present from 4:30 PM- 5:30 PM #4-9 will present from 5:00 PM- 6:00 PM

1. **Hohmann, Natalie** (G) – Association of sedative hypnotics and fall risk in community-dwelling older adults with chronic conditions: A systematic literature review
2. **Prather, Caitlin** (G) – Pharmacy and nursing student perceptions of smoking in healthcare providers
3. **Owensby, Justin** (G) – Leveraging behavioral economics-based interventions to improve medication adherence
4. **Hastings, Tessa** (G) – Recruiting community pharmacies in intervention research: Participation decisions and lessons learned
5. **Mishuk, Ahmed UI** (G) – The association between patient sociodemographic characteristics and generic drug use: A systematic review and meta-analysis
6. **Hohmann, Lindsey** (G) – theoretical analysis of community pharmacists' motivations for participating in Certified Aging Resource Educated Specialist (C.A.R.E.S.) training
7. **Aref, Heba** (G) – Assessing inclusion of Health Belief Model constructs in mass media messages targeting Meningitis B vaccination in college students
8. **Cheng, Ning** (G) – Patterns of healthcare provider utilization for breast cancer patients with comorbidities in the United States
9. **McFarland, Stuart** (UG) – Medicare outreach program: satisfaction and cost-savings