Schedule of Events - This is Research: Student Symposium 2016

8:00 a.m.
Continental Breakfast (Level 2 - across from 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.
Lunch (Level 3 - Ballroom)

11:30 a.m. – 1:00 p.m.
Poster Session (Level 3 - Ballroom)
Undergraduate Research Opportunities Fair

1:00 p.m. – 3:45 p.m.
Oral Paper Sessions
(Level 2 - rooms 2216, 2218, 2222, 2225, 2227, 2310, 2326)

3:45 p.m. – 4:00 p.m.
Transition to evening events

4:00 p.m. – 6:00 p.m.
Poster Session (Level 3 - Ballroom)
Oral Research Presentations – Morning Session
Student Center Meeting Rooms

8:00 – 8:45 a.m.

Room 2216 – Forestry and Wildlife Sciences
  • Duffie, Duston (UG) – The search for meadow jumping mice in east-central Alabama
  • George, Matthew (UG) – Effects of door width on wild pig entrance into traps
  • Williamson, Steven (UG) – A statewide assessment of wildlife intake at Alabama’s wildlife rehabilitation centers

Room 2218 – Physics
  • Mirkhani, Vahid (G) – Effect of gamma-ray irradiation on ZnO transistors
  • Yang, Zechun (Ken) (UG) – Assigning uncertainties to diagnostics of astrophysical objects
  • Ozden, Burcu (G) – Investigation of defects in AlGaN/GaN heterostructures

Room 2222 – Chemical Engineering
  • Hand, William (G) – Soy protein substitution in phenol formaldehyde adhesive used in oriented strand board
  • Hanley, Alan (G) – Scalable method for producing Janus nanoparticles to develop “smarter” nanostructures
  • Kelly, Alexander (G) – Effect of pegylation on silica nanoparticle uptake and viability with Chinese hamster ovary cells

Room 2225 – Psychology
  • Silverstein, Madison (G) – A model of risky sexual behavior on college campuses: The role of sexual victimization history, sexual sensation seeking, alcohol use, and masculinity
  • Harrelson, Megan (G) – The effect of psychoeducation on public perceptions of adolescents with illegal sexual behavior
  • Walker, Erin (UG) – Comparing coercive sexuality scores with sexual sensation seeking, hostility towards women, sexual compulsivity, and rape myth acceptance scores

Room 2227 – Neurology and Computer Imaging
  • Murphy, Jerry (G) – Spatial smoothing and motion correction effects on sub-millimeter resolution fMRI data
  • Lanka, Pradyumna (G) – Perils of using cross-validation for performance estimation in neuroimaging-based diagnostic classification

Room 2310 – Biomedical Sciences
  • Gillen, Alex (G) – In vitro evaluation of the forwarder knot
  • Kitchens, Steven (G) – A two year study of environmental salmonella incidence and proximal contamination in a multi-species animal facility
  • Eldemery, Fatma (G) – Characterization of binding of infectious bronchitis virus spike proteins representing vaccine subpopulations to chicken tissues

(UG) = undergraduate student presentation  
(G) = graduate student presentation
**Room 2326 – Biological Sciences**
- **Gilpin, Jessica** (G) – Abundance and distribution of host sea anemones, associated cleaner shrimps, and fish clients on Caribbean coral reefs at St. Thomas, US Virgin Islands
- **Joyce, Kathlene** (UG) – Phylogeography of slimy salamanders in the state of Alabama
- **Renfro, Bobbie** (G) – Can we swim with the fishes? Impacts of diving tourism on macroalgal grazing behavior by coral reef fishes

**9:00 – 9:45 a.m.**

**Room 2216 – Fisheries and Wildlife Sciences**
- **John, Rebecca** (G) – Tracking nightly movement and fidelity with fluorescent powder for green salamanders in Northern Alabama
- **Gosh, Kamal** (G) – Studying the growth variability of channel-blue hybrid catfish: an integrated base approach
- **Stuart, Mark** (G) – Anemone shrimp microhabitat utilization in a marine cleaning mutualistic network: Optimization for different behavioral strategies

**Room 2218 – Human Development and Family Sciences**
- **Kaeppler, Alex** (G) – Linking social anxiety and autonomic responses to social stress in preadolescence
- **Sabey, Allen** (G) – “Lots of hugs and kisses:” Expressions of parental love as reported by mothers and their children
- **Hartwick, Olivia** (G) – Social competence as a predictor of preschoolers coping tactics during dyadic peer play

**Room 2222 – Chemical Engineering**
- **Kelly, Jessica** (G) – Treatment of GM1 gangliosidosis via pH sensitive polymersomes
- **Noor, Matthew** (G) – Comparing covalent and non-covalent lysozyme functionalized single-walled carbon nanotube dispersions and composites
- **Roe, David** (G) – Effects of supercritical fluid media and a nanoscale catalyst in Fischer-Tropsch fuel production

**Room 2225 – Psychology**
- **Cero, Ian** (G) – Sine qua non: Modern suicide theory and the availability of lethal means
- **Zuromski, Kelly** (G) – Do changes in insomnia precede changes in suicide ideation? A latent change model of community adults over a brief interval
- **Spitzer, Elizabeth** (G) – Examining the relationship between PTSD symptom clusters and the acquired capability for suicide using DSM-5 criteria

**Room 2227 – Aerospace, Mechanical and Electrical Engineering**
- **Moore, William** (UG) – Modeling heat transfer in the presence of linear and nonlinear acoustic waves
- **Venkatasubramanian, Murali** (G) – Quest for a quantum search algorithm for testing stuck-at faults in digital circuits
- **Deokar, Pratik** (G) – Effect of nanoparticles aspect ratio on the two phase flow boiling heat transfer coefficient of refrigerant and nanolubricants mixtures in a 9.5 mm micro-fin tube

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Room 2310 – Entomology
• Ademokoya, Blessing (G) – Attractiveness of the Kudzu bug (Megacopta cribraria) to different legume varieties: in the quest for better management options
• Liu, Feng (G) – The molecular basis of odorant reception in the common bed bug

Room 2326 – Biological Sciences and Biology
• Staley, Molly (G) – Insights into the role of host exposure in limiting disease emergence in a natural host-pathogen system
• Godwin, Rebecca (G) – Systematics of the genus Ummidia: species delimitation using natural history collections
• Benesh, Kasey (UG) – The range stability of Etheostoma tallapoosae and Etheostoma stigmauem

Room 2216 – Forestry and Wildlife Sciences
• Bennett, Mary (G) – Above the tunnels: Habitat use of the southeastern pocket gopher
• Pruitt, Susan (G) – Population dynamics of the endangered prairie massasauga rattlesnake (Sistrurus catenatus tergeminus tergeminus) at Squaw Creek National Wildlife Refuge
• Gould, Brendan (G) – Comparison of hen comb capillary and wing vein blood glucose via compact glucometer

Room 2218 – Consumer Design and Kinesiology
• Rashid, Md Sanuwar (G) – When do sweatshop allegations negatively impact brands? An entitativity-based account for boundary conditions
• Wilburn, Christopher (G) – Quantifying the effects of athletic socks on foot function during gait

Room 2222 – Chemical Engineering
• Dobson, Connor (UG) – Development and functionalization of gold-lipid nanocomposites for cancer theranostics
• Passantino, Joshua (UG) – The effects of additives on the optical and mechanical properties of cellulose nanocrystal films
• Kaczmarek, Jennifer (UG) – Encapsulation and differentiation of human induced pluripotent stem cells to form engineered cardiac tissue using methacrylated gelatin

Room 2225 – Social Sciences and Psychology
• Petri, Jessica (G) – Moving beyond self-report: Construct validation of DSM-5 PTSD using the CAPS-5
• Gauthier, Jami (G) – Incorporation of normative feedback into National Alcohol Screening Day: feasibility, acceptability, and short-term impact on alcohol use and related behaviors
• Yanes, Julio (G) – Neurobiological impact of chronic cannabis use: a meta-analysis of functional neuroimaging studies

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Room 2227 – Chemistry
- Narayanan, Natasha (UG) – Functionalization of the central benzene ring in \([n]para\)-terphenylophanes
- Sustarich, Jake (UG) – Enhanced expression of \(p^{SNTR}\) induced by proNGF leads to neuronal apoptosis
- Armstrong, William (UG) – Is a steric effect the controlling factor in rhodopsin photoisomerization?

Room 2310 – Health Sustainability and Nursing
- Damron, Adley (UG) – The effects of simulation on unlicensed nurses self-efficacy, clinical skill application, and critical thinking
- Tumwebaze, Joel (G) – Community gardening to reduce food insecurity and child malnutrition in Chacraseca-Nicaragua
- Rains, Sara (UG) – Identifying effective community development practices in Ecuador

Room 2216 – Biological Sciences, Aquaculture and Agriculture
- Jescovitch, Lauren (G) – Expanding aeration to manage water quality in split-pond aquaculture
- Folt, Brian (G) – Establishing reference demography for conservation: A case study of the Alligator Snapping Turtle (\(Macrochelys\) temminckii) in Spring Creek, Georgia
- Chen, Rui (G) – The impact of HACCP implementation on US fishery imports

Room 2218 – Humanities, History and Justice
-Hyche, Emma (UG) – Inmate labor and its connections to historical systems of racial labor exploitation
- Zinner, Max (UG) – When church and state collide: Mormonism and polygamy in the late 19th century
- Jeffcoat, Jeremy (G) – Forgotten freedom fighters: Gee’s Bend, Alabama and the voting rights movement of 1965
- Ransom, Cale (UG) – Comparison of the use of common law in the United States and Sri Lanka

Room 2222 – Mathematics and Computer Science
- Harrell, Dexter (UG) – Modeling habitat fragmentation at the landscape level via reaction diffusion equations
- Hyder, Jacob (UG) – 3D fluid modelling using consumer based motion tracking camera
- Motallebi, Safa (UG) – Sequence generation of exponents in prime factorization
- Kim, Doyon (UG) – Variations of Toeplitz’ conjecture

Room 2225 – Creative Scholarship
- Hiware, Sagar (G) – Urban morphology for the City of Montgomery: Building a livable future
- Michaelson, Dawn (G) – Sustainable apparel practices: a zero waste design challenge
- Merlino, Suzanne (G) – Pop-up urban furniture for college campuses
- Brown, Chloe (G) – Starving artist
Room 2227 – Chemistry

- **Islam, Md (G)** – Photochemical reduction of chlorinated hydrocarbon initiated by SPEEK systems using solutions and swollen films
- **Merryman, Caroline (G)** – A cyclophane-based approach to functionalized cycloparaphenylenes

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**Morning Poster Session**

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**Undergraduate Research Opportunities Fair**

Student Center Ballrooms

11:30 a.m. – 1:00 p.m.

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**Nursing (Section A)**

1. **Jones, Kimberly (G)** – Enhancing education to improve patient self-management of heart failure symptoms and decrease risk for hospitalizations
2. **Holston, Doshie (G)** – Venous thromboembolism education in medical oncology staff nurses
3. **Stagner, Christopher (G)** – Increasing hand washing in the immunocompromised dialysis patient
4. **Cole, Meghan (G)** – Improving transition into primary care
5. **Henderson, Kendall (G)** – Patient care journals in intensive care units
6. **Williamson, James (G)** – Statin therapy for the secondary prevention of atherosclerotic cardiovascular disease in individuals 65 years of age and older
7. **Blair, Brittany (G)** – Timely hospice referrals in terminal cancer patients
8. **Blankenship, Mary (G)** – Effects of health literacy and education on hypertension management
9. **Shirley, Pamela (G)** – Evidence based practice and cardiac chest pain; Motivating nurses to embrace EBP versus tradition
10. **Escobar, Manuel (G)** – Obesity intervention in children and adolescents
11. **Riley, Nicole (G)** – Immunization education for parents
12. **Thomas, Larry (G)** – Pediatric asthma: Recommendations to reduce readmissions
13. **McDowell, Samantha (G)** – Improving self-care and pain management at home
14. **Alexander, Kimberly (G)** – Improved adherence of B12 injections with education on self-administration
15. **King, Anetrial (G)** – Reducing congestive heart failure 30-day readmission
16. **Burns, Kara (G)** – Improving outcomes and quality of life in females with chronic pelvic pain
17. **Cannon, Ashley (G)** – Adjunct therapy for peripheral neuropathy
18. **Clark, Kara (G)** – Improving cardiac rehabilitation participation to decrease heart failure readmissions
19. **Clausell, Sekelta (G)** – Hypertension screenings
20. **Criswell, Brandi (G)** – Preventing nutrition disparities in patients with head and neck cancer
21. **Fields, Dana (G)** – Menstrual health education for middle school girls
22. **Finkel, Angie (G)** – Motivational interviewing to incur therapeutic lifestyle change in the overweight and obese
23. **Freeman, Laura (G)** – Getting active: protect the hearts of our community

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24. Garnett, Kaylin (G) – Promoting breastfeeding in adolescent mothers
25. Hall, Ashely (G) – Improving heart failure readmission rates with telephone follow-up
26. Hammaker, Courtney (G) – Improving childhood obesity with educating nursing staff
27. Hobbs, Jennifer (G) – Implementation of diabetes referral distribution in the emergency department at discharge to facilitate education in this population
28. Knight, Amanda (G) – Reducing central venous catheter-related infections in outpatient hemodialysis clinics

Chemical Engineering (Section B)
1. Brazel, Morgan (G) – Understanding cardiac arrhythmias using 3D models of hiPSCs from control and Timothy Syndrome cell lines
2. Cullum, Richard (G) – Validation and implementation of screens for targeted melanoma drug discovery
3. Finklea, Ferdous (G) – Establishing an engineered tissue model to study the effects of alcohol on human heart development
4. Harris, Chelsea (G) – Targeting of GABA receptors using functionalized nanoparticles as a method of treating cancer-related pain
5. Bittner, Sean (UG) – Controlled release of antibiotic agents from PLGA/halloysite nanocomposites
6. Bronston, Fraser (UG) – Gallium-catalyzed aqueous epoxidation
7. McCormack, Kaylee (UG) – Exploration of viable methods to form 1-thia-3,4-diazolidine-2,5-dione (TDAD) based polymers to be used as photoresists, that photodegrade easily to innocuous gaseous compounds
8. Pickering, Christina (UG) – Development of gold-lipidic nanocomposites for cancer improved chemotherapeutic delivery

Biomedical Sciences (Section C)
1. Buckley, Rachel (UG) – Genome editing in non-coding regions with CRISPR
2. Spina, Stephanie (UG) – Studying the noncoding genome, specifically microRNAs, to identify novel breast cancer genetic risk factors
3. Gurley, Bain (UG) – Effects of incubation temperature on hatching success and physical development in zebra finches
4. Matthews, Michael (UG) – TrKA activity is impaired in streptozotocin induced diabetes rat brain
5. Shepp, Kasey (UG) – Exploring genetic associations between hydroxy-carboxylic acid receptors and hereditary breast cancers
6. Fang, Han (G) – Effect of niacin on nonalcoholic fatty liver disease in adiponectin knockout mice: A pilot study
7. Barstow, Carla (G) – Diagnosis and treatment of a pregnant bitch with immune-mediated polyarthritis
8. Sajib, Abdul Mohin (G) – Evaluation of tumor specific promoters for use in conditionally replicating adenovirus mediated virotherapy of canine lymphoma
9. Meadows, Caroline (UG) – The effects of reward magnitude on reward processing: An averaged and single trial event-related potential study

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Environmental Design and Community Planning (Section D)
1. **Byrne, Brendan** (UG) – Traffic impact analysis of augmented bicycle facilities on Auburn University's campus
2. **Cowper, Emily** (UG) – What the frack is in our water? What the frack is in my water?
3. **Garcia, Max** (UG) – Noise pollution impact in a local and global context
4. **Rush, Charles** (UG) – Are you gonna eat that? Global and national food waste
5. **Hiware, Sagar** (G) – Radical regenerative planning for the city of Montgomery
6. **Kaaur, Jaspuneet** (G) – One square mile study

Entomology (Section E)
1. **Ajayi, Olufemi** (G) – Nutritional ecology and its fitness impacts in *Pseydacteon* species (Diptera: Phoridae), parasitoids of imported fire ants (Hymenoptera: Formicidae)
2. **Chen, Zhou** (G) – The immune gene expression and pyrethroid resistance in house flies *Musca domestica*
3. **Feng, Xuechun** (G) – Roles of carboxyesterases in pyrethroid resistant house flies, *Musca domestica*
4. **Yang, Liu** (G) – Foraging orientation, oviposition preference and development of kudzu bug, *Megaopta cribraria* (Hemiptera: Platastidae) on six legume crops
5. **Zeng, Yuan** (G) – Novel constitutive and inducible antibacterial activities against multidrug resistant bacterial pathogens in the Eastern Subterranean Termite *Reticulitermes flavipes*

Pharmacy (Section F)
1. **Yooket, Pattanin** (G) – Regulation of Thiamine Transporter SLC19A3 by HIF1α: a possible potential therapeutic in heart failure
2. **Setti, Sharay** (G) – P301L tau expression exacerbates memory deficits and tau phosphorylation in the aged brain
3. **Aldawsari, Mohammed** (G) – Acyclovir nanogel formulation for human skin cadaver permeation enhancement
4. **Alrbyawi, Hamad** (G) – Short-chain ceramides for enhanced cytotoxicity of liposome-encapsulated Doxorubicin toward human breast cancer cells (MDA-MB231)
5. **Eggert, Matthew** (G) – The role of secretory phospholipase A2 isoforms and PLA2 receptor expression in modulating responsive liposome nanoparticle uptake and therapeutic efficacy within prostate cancer models
6. **Lee, Yann-Huei** (G) – Mathematical modeling of pharmacokinetic parameters for transdermal beta blockers
7. **Alhowail, Ahmad** (G) – Doxorubicin alters mechanisms of memory formation in *ex vivo* and *in vivo* models of Chemobrain
8. **Brannen, Andrew** (G) – Segmental 360° bioluminescent imaging using the Mouse Imaging Spinner (MiSpinner) shows potential for accurate monitoring of tumor development
9. **Pinky, Priyanka** (G) – Prenatal nicotine exposure and mechanism of memory loss in offspring
10. **Zhang, Lingxin** (G) – Identification of a biased agonist for P2Y2 receptor to suppress pro-thrombotic gene expression in human coronary artery endothelial cells
12. **Huynh, Jennifer** (G) – Evaluation of adherence to the American Diabetes Association standards of medical care in HIV-infected patients

13. **Wong, Ryan** (G) – Predicting vancomycin AUC24 based on plasma concentrations: A simulated evaluation

14. **AlAsmari, Abdullah** (G) – Elucidating the cardioprotective role of HIF-1α-frataxin signaling against ischemia-reperfusion injury

15. **Alturki, Mansour** (G) – LC-MS Based Approach to Characterize Non-Specific Binding Inhibitors to *Mycobacterium tuberculosis* Shikimate Kinase (MtSK)

**Educational Foundations (Section G)**

1. **Slear, Susan** (G) – A qualitative method to promote equivalency in distance learning

2. **Lin, Xi** (G) – A qualitative study of Chinese students’ choice of the host university in the U.S. and their decisions to stay or leave the U.S. upon graduation

**Audiology (Section H)**

1. **Gehring, Cydney** (G) – Neonatal-intensive care unit parent education on hearing loss

**Health Outcomes (Section I)**

1. **Hohmann, Lindsey** (G) – The moderating power of impulsivity: a thorough literature review examining the theory of planned behavior

2. **Hohmann, Natalie** (G) – Medication dispensing error learning processes in U.S. community pharmacies: a systematic literature review as seen through the four frames model of organizational theory

**Polymer, Industrial and Mechanical Engineering (Section J)**

1. **Cook, Jonathan** (G) – Synthesis of functionalized polyaniline as a conductive curing agent for epoxy resins

2. **Li, Mei** (G) – Polysaccharide blended films for cationic contaminant removal from water

3. **Nautiyal, Amit** (G) – Conducting polymer coating on carbon steel by electrochemical method

4. **Derhami, Shahab** (G) – A novel optimization approach for data mining: A medical diagnosis case

5. **Granzow, Robert** (G) – Full shift physical activity among reforestation hand planters

6. **Liu, Yuzhe** (G) – Rapid and sensitive detection of Salmonella Typhimurium on plastic food processing plate by using wireless biosensors

7. **Zhou, Lang** (G) – Electrochemical proximity assay of platelet-derived growth factor with a multiparametric/multimodal spectroscopy apparatus and its mechanisms study

8. **Ramezan pour, Bahareh** (G) – Exact simulation of polarized light reflectance by particle deposits

9. **Kim, Sungil** (UG) – A cross correlation-based stock forecasting model

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Oral Research Presentations – Afternoon Session
Student Center Meeting Rooms

1:00 – 1:45 p.m.

Room 2216 – Forestry

• **Cole, Andrea** (G) – Effect of growth rate on *Amylostereum* spp. fungus by terpenes
• **Celikbag, Yusuf** (G) – The role of ethanol and temperature on hydroxyl and carbonyl groups in bio-oil produced by hydrothermal liquefaction of Loblolly Pine
• **Devkota, Pratima** (G) – Varying tolerance of mature Loblolly Pine (*Pinus Taeda* L.) families to root infecting fungi

Room 2218 – Tourism and Hospitality Management

• **Chen, Han** (G) – Cultural tourism: An analysis of engagement, cultural contact, memorable tourism experience and destination loyalty
• **Dillette, Alana** (G) – Experiences of wellness through tourism: A content analysis of Tripadvisor reviews
• **Stephan, John** (G) – Examining online consumer’s intention to book hotel rooms

Room 2222 – Chemical Engineering

• **Saha, Partha** (G) – Low temperature fabrication process of Microelectromechanical Systems (MEMS) from a renewable and biodegradable source with unique mechanical and optical properties
• **Whitener, Ricky** (G) – Using nucleic acid aptamers to modulate specificity, binding, and quantity of drug for personalized treatment
• **Tilton, Skyler** (UG) – 3D printing embedded circuits

Room 2225 – Humanities – English

• **Williford, Carson** (UG) – War damn Iron Bowl: Possible legend and legendary possibility in a house divided
• **Skjellum, Hannah** (UG) – “His love was in the earth…his love was faraway feeding on the rain:” Other Voices, Other Rooms and mutable queer spaces
• **Shannon, Ian** (UG) – Value in space: the importance of literary journals and printed material in a digital age

Room 2227 – Materials and Mechanical Engineering

• **Chanysheva, Alina** (G) – Organophosphorus neurotoxin detection via electrochemical methods
• **Talebinezhad, Hossein** (G) – Energy storage properties of BaTiO3-SiO2 composites
• **Vahid Mohammadi, Armin** (G) – Freestanding electrodes of interlayer expanded 2D Ti3C2 (MXene) for high performance supercapacitors

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2:00 – 2:45 p.m.

Room 2216 – Forestry and Wildlife Sciences
- **Poudel, Jagdish** (G) – Trends in species conservation banking in the United States
- **Santiago, Rafael** (G) – Coppicing evaluation in the southeast of the U.S. to determine harvesting methods
- **Majidzadeh, Hamed** (G) – Soil carbon beneath impervious surfaces in urban environments

Room 2218 – Chemistry and Drug Discovery
- **Mitra, Nirmal Kumar** (G) – Macrocyclic 1,4-Diketones to highly bent para-Phenylenes using a mild dehydrative aromatization protocol
- **Woodie, Lauren** (G) – Characterization of recombination-activating gene 1 function in peripheral physiology and hippocampal synaptic plasticity

Room 2222 – Chemical Engineering and Chemistry
- **Head, Sara** (UG) – Gelatin methacrylate and polyethylene glycol-fibrinogen as novel biomaterials to form functional 3D human cardiac tissues
- **Lloyd, Carter** (UG) – Incorporation of Nucleic Acid Aptamers in Silicone Hydrogel Contact Lens for Controlled Drug Delivery
- **Sloan, Authur** (UG) – Single-Walled carbon nanotube dispersion in an complex microbiological medium

Room 2225 – Pathobiology and Animal Sciences
- **Liao, Chao** (G) – Establishment and validation of RNA-based predictive models for understanding survival and susceptibility of low-temperature adapted *Vibrio parahaemolyticus* in oysters
- **Farjana, Saiada** (G) – Changes in avian infectious bronchitis virus (IBV) spike proteins associated with adaptation to chicken embryonic kidney (CEK) cells do not improve attachment

Room 2227 – Industrial and Systems Engineering and Natural Resources
- **Huangfu, Rong** (G) – Quantifying stairwell evacuation times
- **Baltaci, Enis** (G) – Assessment of Rain Barrels and Permeable Pavements as LID Practices on Urban Flooding
- **Damianidis, Damianos** (G) – Evaluating a generic drought index as a tool to predict aflatoxin contamination in corn

3:00 – 3:45 p.m.

Room 2216 – Fisheries
- **Abass, Nermeen** (G) – Genotype-environment interactions for survival and growth rate at varying salinity for channel catfish, albino catfish, and transgenic channel catfish by cDNA growth hormone (GH).
- **Abdelrahman, Hisham** (G) – Water temperature as a possible cause of variations in performance of Pacific white shrimp *Litopenaeus vannamei* in inland ponds for low-salinity culture
- **Gratz, Steven** (G) – Economic value of recreational fishing on reservoir and tailrace sections of Millers Ferry Reservoir, Alabama

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Room 2218 – Nutrition and Dietetics
- **Hardin, Amie** (G) – Diabetes self-management education and medical nutrition therapy for Type 2 diabetes mellitus improves patient outcomes: a retrospective chart review
- **Reece, Jami** (UG) – Role of sugary water consumption in adipose gene expression
- **Kothari, Vishal** (G) – High fat western diet leads to hyperphosphorylated tau and amyloid beta in mice brain

Room 2225 – Drug Discovery
- **Nie, Ben** (G) – Evaluation of in vitro and in vivo intracellular uptake and degradation of sPLA2 responsive liposome in prostate cancer by LC-MS/MS
- **Chandler, Madison** (G) – Breast cancer susceptibility gene panel screening using next generation sequencing technology in an African-American cohort in Alabama
- **Hunsberger, Holly** (G) – Suppression of glutamate uptake mediates hippocampal hyperexcitability induced by peripheral viral challenge

Room 2227 – Architecture and Urban Planning
- **Halepaska, Anna** (UG) – On void and volume as a reinterpretation of urban infill developments
- **Page, Sarah** (UG) – Pedestrian access and experience
- **Katsoulis, Abigail** (UG) – Archibet

4:00 – 4:45 p.m.

Room 2216 – Biosystems Engineering and Geosciences
- **Richard, Sarah** (G) – Quantification of polycyclic aromatic hydrocarbons in biochar
- **Cross, Phillip** (G) – Chemical properties of lignin that effect tar formation during gasification of biomass
- **Jahan, Shakura** (G) – Origin of petroleum in the Bengal Basin, Bangladesh

Room 2218 – Nutrition and Dietetics
- **Luo, Yuwen** (G) – Metabolic phenotype and adipose and liver features in the high fat Western diet-induced mouse model of obesity-linked NAFLD
- **Willis, Amy** (G) – Mediterranean diet intervention in obese men and women using both nutrition education and supplementation of extra virgin olive oil and mixed nuts.
- **Zheng, Chen** (G) – TRAF6 leads to ubiquitination and activation of Akt

Room 2222 – Education & Communication
- **Britton, Keely** (G) – Examination of mentoring mindsets of faculty (mentors) and graduate students (protégés/mentees): Mentoring framework exploratory study
- **Seung-Bickley, Rebecca** (G) – Establishing credibility through conflict: An examination of anti-vaccination rhetoric
- **Powell, Stephen** (G) – A mixed methods analysis of first graders' knowledge and misconceptions of agriculture

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Room 2225 – Pharmacology and Drug Discovery

- **Gossett, Heather** (G) – Comparison of acetaminophen administration to horses through a paste and nasogastric tube
- **Porter, Haley** (G) – Physicochemical characterization of Nepafenac by Hydroxypropyl-Beta-Cyclodextrin Complex for ocular delivery

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**Afternoon Poster Session**

4:30 – 6:00 p.m.
Student Center Ballroom

**Physics (Section M)**
1. **Edmond, James** (UG) – Ion-momentum imaging of dissociative-electron-attachment dynamics in N$_2$O and HCCH.
2. **Wang, Martin** (UG) – Computational Study of Electrostatically Tunable Band Offsets in MoS$_2$ Multilayers

**Nursing (Section N)**
1. **Beverly, Kristen** (G) – Interactive fall prevention strategies
2. **McManus, McKenzie** (G) – Medication adherence for hypertension management
3. **Kohl, Catherine** (G) – Evidence based strategies for diet and exercise compliance in Type 2 diabetes mellitus
4. **Lee, Alysia** (G) – Cardiovascular disease in women
5. **McCullough, Ruth** (G) – Improved management of hypertension with scheduled follow-up upon discharge from the emergency department
6. **McDonald, Tara** (G) – Increasing adherence to antihypertensive medications in hypertensive patients
7. **McFarland, Trevor** (G) – Anticoagulation selection and monitoring in patients with atrial fibrillation
8. **McLean, Ashley** (G) – Do vitamins work for decreasing blood pressure in women?
9. **Mollus, Tara** (G) – Compassion fatigue screening in oncology nurses
10. **Moore, Alisha** (G) – Diabetes education in Hispanic patients
11. **Newman, Tina** (G) – Improving vaccination for Human Papillomavirus through parental education
12. **Williams, Candy P.** (G) – Interventions to reduce readmissions and mortality in patients with COPD
13. **Richardson, Brooke** (G) – Urinary tract infections: prevention and management
14. **Root, Michelle** (G) – Bydureon (exenatide QW) in Type 2 diabetes mellitus
15. **Sparks, Minju** (G) – Healthy heart lifestyle intervention for women at high risk and/or diagnosed coronary heart disease
16. **Spencer, Robin** (G) – Improving health literacy in type II diabetic patients
17. **Stacey, Melanie** (G) – Adolescent restraint and seclusion educational process improvement initiative
18. **Stokes, Stacie** (G) – Sexually transmitted disease education for college students
19. **Williams, Christalyn** (G) – Distress screening in adult oncology

(UG) = undergraduate student presentation

(G) = graduate student presentation
20. **Williams, Candy M. (G)** – Heart failure readmission prevention
21. **Woodfin, Elizabeth (G)** – Comprehensive screening for suspected hypothyroidism
22. **Young, April (G)** – Evidence based practice for an asthma action plan
23. **Dean, Terrica (G)** – Group-based medical visits in Type 2 diabetes patients
24. **Kilcullen, Evangeline (G)** – Medication reconciliation: the journey home
25. **Hardy, Amanda (G)** – Education toward hypertension control
26. **McCollough, Samantha (G)** – Increased medication education regarding anticoagulants among elderly patients
27. **Plake, Becca (G)** – Eating disorder education in the female college-aged population

**Biosystems Engineering (Section O)**

1. **Li, Jing (G)** – Detoxification of softwood hydrolysate for butanol production by Clostridium acetobutylicum ATCC 824
2. **Loxley, Thomas (G)** – Comparing loblolly pine growth allometry with chemical and physical properties
3. **Rains, John (G)** – Pathogen removal in algal turf scrubber
4. **Shakya, Rajdeep (G)** – Upgrading of bio-crude obtained from hydrothermal liquefaction of algae
5. **Shrestha, Anshu (G)** – Bench scale analysis of off-gas emissions from stored loblolly pine grinds
6. **Copley, Kirk (UG)** – Standardization of agriculture production budget models using python
7. **Ashmore, John (UG)** – Gasification of Douglas Fir: Effect of particle size and crumble vs hammer milled particles
8. **Granger, Craig (UG)** – Behavior of bark from short rotation woody crops
9. **Haber, Holly (UG)** – Superabsorbent polymers from renewable resources
10. **Iskandar, Jeffry (UG)** – Production of bio-oil by hydrothermal liquefaction of algae
11. **King, Ben (UG)** – Flow characteristics of woody biomass grinds and crumbles

**Chemical Engineering (Section P)**

1. **Mondal, Animesh (G)** – Spray deposition of Cu$_2$ZnSnS$_4$ (CZTS) for cost-effective and non-toxic photoelectrodes
2. **Tian, Yuan (G)** – Endothelial progenitor cell encapsulated in poly(ethylene glycol)-fibrinogen hydrogels for injectable delivery of cells and neovascularization
3. **Zhao, Rong (G)** – Solar-driven waste-to-fuels in a hybrid photoelectrochemical reactor
4. **Paul, Kyle (UG)** – Examining cell viability in relation to PEG length and silica nanoparticle size
5. **Windham, Katherine (UG)** – Engineering nucleic acid aptamers responsive to physiological conditions creating controlled drug delivery platforms

**Chemistry and Biochemistry (Section Q)**

1. **West, Maya (G)** – Uranyl sensing using Quinoxalinol Salen-based ligand
2. **Njuma, Olive (G)** – Radical mechanisms for Catalase-Peroxidase (KatG) activity, inactivation, and restoration
3. **Eddy, Madeleine (UG)** – Characterization of Salen ligand complexes for application in Uranyl sensing
4. **Farmer, Taylor (UG)** – Expanding the scope of a new cascade reaction
5. **Ward, Meghan (UG)** – Exploring zinc compounds as potential anti-oxidant pharmaceuticals

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(G) = graduate student presentation
Biomedical Sciences (Section R)
1. Young, Taylor (UG) – PPAR-gamma activation helps clear insulin induced amyloid beta
2. Jarrard, Madison (UG) – Characterization of *Mycobacterium tuberculosis* Shikimate Kinase inhibitor
3. Hubbard, Caroline (UG) – The effects of macronutrients in inducing satiety via Peptide YY
4. Johnson, Nate (UG) – Molecular mechanism of doxorubicin-induced memory dysfunction

Architecture and Design (Section S)
1. Sokienah, Yaman (G) – General hospital for low-income community
2. Li, Jingting (G) – Sunny days & rainy days: strengthen neighborhood culture through nature-based organic design
3. Wu, Hao (G) – Process-based design within the post-industrial model
4. Lima, Livia (G) – Crafting a new urban core for the peninsula of Mobile, AL
5. Vaughn, Bailey (UG) – Women’s and children’s specialized hospital
6. Barrows, Emily (UG) – Children’s of Ochsner Health System
7. Dessert, AJ (UG) – Pediatric trauma and disease control center
8. Thomas, Lauren (UG) – Hospital Saint Paul de Tarsa
9. Owens, Taylor (UG) – Biomimicry within the women and children’s healthcare center
10. Ridgeway, Molly (UG) – Sao Paolo Women and Children’s Healing
11. Slade, Abbie (UG) – Auckland City Women and Children’s Hospital
12. Williams, Haley (UG) – Bayside Hospital: Women and Children’s Healthcare of Auckland
13. Bowen, Ryan (UG) – Generation of new landscape forms through mold making, digital, and mixed media experimentation
14. Collier, Caroline (UG) – Ethereal militia
15. Criminale, George (UG) – Interior artifacts

Kinesiology (Section T)
1. Gascon, Sarah (G) – Effects of fatigue on throwing kinematics among NCAA division I softball athletes
2. Javage, Erika (G) – The effect of an alternative lacing strategy on gait parameters
3. Dyke, Ford (G) – Does a single bout of ‘green exercise’ facilitate engagement in future exercise behavior? A one-year follow-up pilot study
4. Nabity, Chloe (G) – Influence of sock type on gait parameters
5. Grand, Kirk (G) – Why self-controlled feedback enhances motor learning: Answers from electroencephalography and indices of motivation
6. Meadows, Caroline (UG) – Motivation and motor-preparatory brain activity independently affect response time

Geosciences, Forestry, Environmental and Natural Resources (Section U)
1. Bowen, Trae (G) – An impervious surface analysis of the locust watershed located in Birmingham, AL
2. Torres, Jose (G) – Detecting a subsurface smouldering event using Landsat thermal imaging: Bridgeton landfill case study
3. Da Cunha, Jose (G) – Sensor-based irrigation scheduling can help corn growers to increase profitability and environmental stewardship

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4. Bartholomew, Megan (G) – Long term vegetation response to hydrologic recovery in isolated cypress domes of west-central Florida
5. Zhang, Bowen (G) – Net exchange of CH$_4$ fluxes between terrestrial ecosystem and atmosphere in the Arctic-Boreal Region under future climate change scenarios
6. Essien, Charles (G) – Assessing the sensitivity of acoustic tools to the effect of moisture content in estimating acoustic velocity and modulus of elasticity of loblolly pine (**Pinus taeda**)
7. Lamb, Avery (UG) – Plant growth and physiology of rain garden plants in two soil types
8. Kindgren, Kelly (UG) – Detrital zircon age populations from the Moine Supergroup, Scotland, and their implications for tectonic evolution

**Nutrition, Hospitality Management and Human Development and Family Science**

*(Section V)*
1. Khliefat, Aahed (G) – Identifying first-time American hospitality managers motivations in accepting overseas assignments
2. Hlavaty, Kathleen (G) – Differentiating exposure to coercive controlling violence: A mixed methods study
3. Saini, Ekjyot (G) – Neighbourhood social fragmentation associations with objective sleep among women
4. Li, Yueru (G) – The protective effect of stearidonic acid (SDA) on amyloid-$\beta$-40-induced neurotoxicity in H19-7 hippocampal cells.
5. Qi, Yijing (G) – Blood glucose concentrations are not increased by chronic IP Glucagon administration in Leptin-Treated Type 1 diabetic rats
6. Rege, Shraddha (G) – Resveratrol provides neuroprotection against oxidative damage and memory loss
7. Bottcher, Mary (G) – Nutrition knowledge and Mediterranean diet adherence: Validation of a field based survey instrument
8. Cave, Carlie (UG) – The role of anxious attachment on multiple domains of functioning following couple and relationship education participation
9. Hermes, Carolyn (UG) – Predictors of preschoolers’ prosocial behavior during dyadic peer conflict

**Engineering and Building Science** *(Section W)*
1. Mathews, Justin (UG) – Development of a return on investment framework for building information technology implementation by developers
2. Kim, Sungil (UG) – Ultra-low power subthreshold circuit design and optimization
3. Thornton, John (UG) – The mobile tool for music appreciation students
4. White, James (G) – The impact of change orders on construction projects at Auburn University
5. Wang, Jin (G) – Effects of median widths on wrong-way incidents on multilane divided highways
6. Xie, Zhaoxing (G) – Effect of recycling agent on performance of high RAP and RAS mixtures: field and lab experiments
7. Wolert, Patryk (G) – Permit load model of a flat slab bridge
8. Wang, Shiqiang (G) – Gamma-ray irradiation effects and temperature-dependent density of state analysis of Sol-Gel derived ZnO thin-film transistors I-V characteristics
9. Kilari, Harika (G) – Thermal-aware task scheduling in Linux kernel
10. Holt, Allison (G) – Visual cryptography tool for colorful images
11. Thorn, Caitlin (G) – Optimization of a turboramjet hot section with an interstage turbine burner

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Psychology (Section X)
1. Arnold, Megan (G) – Strain and baseline-dependent effects of scopolamine on operant variations
2. Busler, Jessica (G) – Cultural differences in emotion processing: A BrainMap meta-analysis
3. Harris, AuBriana (UG) – Examining the moderation effect of work overload on role-conflict and burnout
4. Paneerselvam, Bavani (G) – Effects of framing on JOLs and learning choices
5. Williams, Caitlin (G) – An exploratory factor analysis of the stigma of suicide scale-short form
6. Sauer, R. Alexander (G) – Methylmercury exposure in adolescence saturates memory and enhances psychomotor responding in mice
7. Kirby, Lauren (G) – Preliminary materials toward a Library of Affective Films (LAF): Standardization and psychophysiological validation
8. Britton, Erica (UG) – Antecedents and mediators of personal growth initiative: Work-role ambiguity and interpersonal conflict in the workplace
9. Dieujuste, Nathalie (UG) – Support for the utility of a seven-factor hybrid model of PTSD
10. Kirkland, Anna (UG) – Ultra high field, high-resolution functional neuroimaging in adolescents
11. Stevenson, Sarah (UG) – Physiological and psychological effects of music

Social Science and Political Science (Section Y)
1. Good, AJ (G) – Predicting state budget policy: State political factors influencing higher education funding
2. Nelson, Steven (G) – Fuelling the boom or smothering it? Examining fracking policy differences across the States
3. Lingerfelt, Beth (UG) – A lady’s table
4. Pattillo, Tiffany (UG) – Second thoughts about the Second Amendment
5. Robinson, Matthew (UG) – My everyday hero

Biology and Animal Sciences (Section Z)
1. Willhelm, Gabrielle (UG) – Investigating a novel technique for tribological analysis of equine articular cartilage under sustained constant force and a migrating contact area
2. Robinson, Anna (UG) – Irradiance and clownfish sea anemones: Aspects of tentacle morphology and physiology
3. O’Connor, Mallory (UG) – Prodigiosin pigment of Serratia marcescens bacteria controls energy and biomass production
4. Sahinoglu, Hakan (UG) – Screening of soil microbial isolates for broad antibiotic activity
5. Segars, Jonothon (UG) – The physiological effects of Triadica sebifera on Rhinella marina
6. Yeo, Yoonsoo (UG) – Simultaneous saccharification and fermentation of switchgrass and waste paper to bioethanol
7. Smith, Gayle (UG) – Spes, please: A screen for new spermatogenesis defective mutants in the nematode C. elegans
8. Welling, Emily (UG) – Evaluating the relationship between energy expenditure and oxidative damage in the house finch, Haemorhous mexicanus
9. Boling, Anna (UG) – Population dynamics of murine spleenocytes as a function of age
10. Muller, Reka (UG) – Identification and characterization of Glanzmann Thrombasthenia in two closely related beagle-mix dogs

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11. Dinan, Maude (UG) – Investing environmental literacy: determining the relationship between socio-demographic factors and bird identification ability
12. Holland, Victoria (UG) – Effect of incubational egg turning rate on gut development in the chick, gut morphology, and developmental biomarkers
13. Rankins, Seth (UG) – Effects of seasonal variation between sexes visiting baited camera sites on population estimates of deer