



SPRING SHOWCASE FOR  
**RESEARCH &  
CREATIVE INQUIRY**  
WEDNESDAY APRIL 22, 2020

# Spring Showcase for Research and Creative Inquiry 2020

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## **Acknowledgements**

### **Student Showcase Organizing Committee**

Amorette Barber, Chair  
Virginia Beard  
Stephanie Buchert  
Lu Fang  
Mark Hamilton  
Evan Long  
Kat McKlesky  
Sarah Porter, Co-Chair  
Jackie Secoy  
Jessi Znosko

The members of the Student Showcase Organizing Committee would like to thank the following offices and organizations on campus for support:

Academic Affairs  
Cormier Honors College  
Greenwood Library  
Office of Admissions

## Virtual Spring Student Showcase on Digital Commons

The Office of Student Research is sponsoring Longwood University's first virtual Student Showcase for Research and Creative Inquiry.

[https://digitalcommons.longwood.edu/spring\\_showcase/](https://digitalcommons.longwood.edu/spring_showcase/)

The virtual Student Showcase will be held in an asynchronous manner. Student projects and presentations will be displayed on a dedicated Spring Showcase Digital Commons site. The presentations will be organized into various “Project Categories” and this information is included in the Student Showcase program.

**Presentations will be open for comments from April 22-24, 2020 with a live Q and A session on April 22 from 2:00 – 4:00 pm.**

If you have any questions, please contact [digitalcommons@longwood.edu](mailto:digitalcommons@longwood.edu)

## Awards Ceremony

**2:00 P.M.- 3:00 P.M., Zoom Session**

Please join us as we acknowledge and celebrate our students who have gone above and beyond in their pursuit of research and creative inquiry! The awards ceremony will include the winners of the *INCITE* Journal of Undergraduate Scholarship awards, and students who are being recognized with the Longwood Excellence in Research and Inquiry Award.

**Students who are receiving the Longwood Excellence in Research and Inquiry Awards have had one or more of the following accomplishments:**

- Presented research at a scholarly conference or had a performance or exhibition of creative work outside of Longwood University
- Published an article in a peer-reviewed scholarly journal or received external funding to support an independent research and inquiry project
- Completed a Senior Honors Research Project at Longwood University
- Published in *INCITE*, the undergraduate research journal for the Cook-Cole College of Arts and Sciences at Longwood University

## Senior Honors Research

**Carrie Reaver** (Faculty Mentor Dr. Bjoern Ludwar)

*Identifying Fluctuating Asymmetry and Developmental Rate as Indicators of Developmental Stability in Drosophila Melanogaster*

**Bethany Adams** (Faculty Mentor Dr. Andrew Yeagley)

*Synthesis of substituted bisphenol probes towards the investigation of antagonistic effects observed with 3,5-substituted paraben derivatives*

**Jordan Berkompas** (Faculty Mentor Dr. Thomas Wears)

*Differential Invariants of Curves and Surfaces Under Geometric Transformations*

**Joshua Hutchinson** (Faculty Mentor Dr. Frank Bacon)

*2008, 2012, 2016 Summer Olympics: A Test of Market Efficiency*

**Nathan Iskowitz** (Faculty Mentor Dr. Robert Blaisdell)

*Mouthguard Use on Throwing Velocity*

**Derek Jones** (Faculty Mentor Dr. Jo Morrison)

*Effect of different music genres on cognitive task performance after high intensity interval training*

## Perspectives on Research in Science and Mathematics (PRISM)

**Meghan Hall** (Faculty Mentor Dr. Eric Shanle)

*Cancer Mutations Alter the Coactivator Activity of p300 Core*

**Abigail Harris and Thomas Hoke** (Faculty Mentor Dr. Sujan Henkanaththegedara)

*Assessment of Agnostic Interactions between Native and Invasive Crayfish using Novel Video Tracking System*

**Christopher Skibinski** (Faculty Mentor Dr. Robert Blaisdell)

*The effects of mouth guard use for sport performance enhancement on indices of neuromuscular force and power*

**Kimia Jahangiri** (Faculty Mentor Dr. Benjamin Campbell)

*Conceptualizing Chemistry in Three Layers*

**Haley Bresnahan** (Faculty Mentor Dr. Andrew Yeagley)

*Investigating aliphatic phosphazenes as quaternary amine cation (QAC) mimics*

**Keira Naff** (Faculty Mentor Dr. Jonathan White)

*Characterization of cellular targets and derivatization of a choline-appended Pt anticancer therapeutics*

**Christian Conner** (Faculty Mentor Dr. Julian Dymacek)

*Non-negative matrix factorization*

**Iris Hammond** (Faculty Mentor Dr. Jeffrey Ledford)

*Non-Local Kernel Approximation*

**Jessica Donahue** (Faculty Mentor Dr. Steven Hoehner)

*Maximum Surface Area Polytopes Inscribed in the Unit Sphere in  $R^3$*

**Thomas Hoke and Abigail Harris** (Faculty Mentor Dr. Sujan Henkanaththegedara)

*Assessment of Agnostic Interactions between Native and Invasive Crayfish using Novel Video Tracking System*

**Kirsten Bauer** (Faculty Mentor Dr. Dina Leech)

*Fish Foraging and Freshwater 'Browning': The Balance Between Visual, Chemical, and Mechanical Cues in Searching for Zooplankton Prey*

**Davice Jones** (Faculty Mentor Dr. Dina Leech)

*Fish Foraging and Freshwater 'Browning': The Balance Between Visual, Chemical, and Mechanical Cues in Searching for Zooplankton Prey*

**Sarah Dooley** (Faculty Mentor Dr. Dale Beach)

*Exposing the Hidden Genetic Character of Non-Model Organisms*

## Independent Research

**Candace Freeman** (Faculty Mentor Dr. Ian Danielsen)

*Child Sexual Grooming and Predator Method*

**Christina Amoruso** (Faculty Mentor Dr. Denis Trubitsyn)

*Effectiveness of Antimicrobial Substances Used to Clean Teaching Laboratory*

**Tessa DeWalt and Kirsten Bauer** (Faculty Mentor Dr. Dina Leech)

*Dissolved Organic Matter Flocculation in Coastal Streams and Its Effects on Water Quality*

**Ashley Coddington** (Faculty Mentor Dr. Erin Shanle)

*Mre11 cancer variants are expressed at similar levels in yeast*

**Jessica Savas** (Faculty Mentor Dr. Erin Shanle)

*Are Mre11 mutants effecting the sensitivity of Camptothecin?*

**Caitlin Harris** (Faculty Mentor Dr. Erin Shanle)

*Using *S. cerevisiae* to screen cancer mutations in the DNA damage response pathway*

**Brandon Hastings** (Faculty Mentor Dr. Brandon Jackson)

*Analyzing the Flight Patterns and Behavior of Dragonflies Engaged in Aerial Territory Battles*

**Nam Nguyen** (Faculty Mentor Dr. Steven Hoehner)

*The Entropy Power Inequality*

**Derek Holmberg** (Faculty Mentor Dr. Kenneth Pestka II)

*Exploring Connections Between Baseball Bat Geometry, Material, and Performance Using Impact Tests*

**Patrick Muse and Ivy Stevens** (Faculty Mentor Dr. Eric Laws)

*Assessing the effects of voluntary mental imagery skills on memory and other cognitive functions*

**Marija Venta** (Faculty Mentor Dr. Renee Gutierrez)

*Epic and Empire: Perceptions of Indigenous People Then and Today*

**Ashley Cooper, Emmelene Rutledge, and Margaret Sutton** (Faculty Mentor Dr. JoEllen Pederson)

*A Typology Linking Rural Community Health and Volunteering Using Mixed Methodology*

**Hannah Meyls** (Faculty Mentor Dr. Sarah Porter)

*Analysis of Phenolic Compounds in Moroccan Olive Oils by HPLC*

**Jamie Breunig and Hannah Meyls** (Faculty Mentor Dr. Ben Topham)

*Analysis of Cannabinoids in Hemp Products*

**Lauren Johnson** (Faculty Mentor Dr. Ben Topham)

*Fermi level pinning and chemical control of single molecule electronics*



**Sarah Ghali, Antonio Harvey, and Katelynn McCrillis** (Faculty Mentor Dr. Sarah Porter)  
*Analysis of Petroleum Products for Forensic and Environmental Applications*

**Marcia Lanasa and Adonel Grubb** (Faculty Mentor Dr. Andrew Yeagley)  
*Synthesis and antimicrobial evaluation of gallate esters*

**Kelsey Thornton** (Faculty Mentor Dr. Sujana Henkanaththege) (Faculty Mentor Dr. Sujana Henkanaththege)  
*A Decline in Wintering Bird Species in Central Virginia Suggests a Need for Increased Conservation Efforts*

### **Cormier Honors College for Citizen Scholars**

**Benedict Loucas** (Faculty Mentor Dr. Alix Fink)  
*The Wonderful World of Grocery: A Demonstration of Computer Science in Everyday Applications*

**Kirsten Bauer** (Faculty Mentor Dr. Benjamin Campbell)  
*Wetlands in your Backyard: a Virginia wetland Typology*

**Kathryn Autrey and Naajamah Jones** (Faculty Mentor Dr. William Collier)  
*Social Media and Environmental Degradation: Selfish Selfies and the Unsustainable Instagram Snapshot*

**Hannah Overstreet and Victoria Adame** (Faculty Mentor Dr. William Collier)  
*The Consequences of Human Nature on Mother Nature: The Effects of Oil from Infrastructure on Wildflowers*

**Sydney Eliza Taylor and Ellen Grace Johnston** (Faculty Mentor Dr. William Collier)  
*Real News, Fake News: the Misconceptions of Climate Change*

**Alexa Marzloff and John Eddy** (Faculty Mentor Dr. William Collier)  
*How Diverse are Our Local Streams?*

**Cameron Toddy** (Faculty Mentor Dr. Elif Guler)  
*A Rhetorical Analysis of the Song "We Are The World": A Call to Change Yesterday, Today, and Tomorrow*

**Jacqueline Amaya Hernandez and Kiley Clark** (Faculty Mentor Dr. Consuelo Alvarez)  
*The Presence of Different Genotypes in Different Strands of DNA*

**Dylan Scordellis and Josh Bain** (Faculty Mentor Dr. Consuelo Alvarez)

*SNP Gel Electrophoresis on Genetic Traits*

**Kaleigh Beale and Eleanor Carr** (Faculty Mentor Dr. Consuelo Alvarez)

*Single Nucleotide Polymorphism in Three Traits*

**Delaney McMahon and Isabelle Villarreal** (Faculty Mentor Dr. Consuelo Alvarez)

*Determining the Genotypes of Four Characteristics Within Two Individuals*

**Davice Jones and Jeri Tyler** (Faculty Mentor Dr. Consuelo Alvarez)

*Determining the Genotype of Four SNPs of Two Individuals*

**Megan Bland** (Faculty Mentor Dr. Brandon Jackson)

*Got Milk?*

**Cameron Toddy** (Faculty Mentor Dr. Brandon Jackson)

*Benefits of Plant-Based Proteins*

**Joshua Walker** (Faculty Mentor Dr. Benjamin Topham)

*Connecting electron transmission through single molecule switches to quantum mechanical models*

**Carrie Reaver** (Faculty Mentor Dr. Andrew Yeagley)

*Saving the Synapse: Assessing Opioid Receptors as Therapeutic Targets in the Management of Drug Addiction*

**Danielle Hess** (Faculty Mentor Mr. David Zirkle)

*Differences in Big Banks and Small Banks*

**Casey Williams** (Faculty Mentor Mr. David Zirkle)

*A Closer Look into Trade in Madagascar*

**Bryana Woodson, Lauren Zion, Samuel DiLandro, and Kendra Fetty** (Faculty Mentor Dr. Katherine Matthews)

*The Types of Peer Tutoring*

**Ashley Schweizer and Bailey Nixon** (Faculty Mentor Dr. Robin Smith)

*Autism Speaks: Extending Grammar in the Classroom to Students with Autism*

**Sarah Myroup** (Faculty Mentor Dr. Sean Ruday)

*Senses of Grammar*

**Kelsey Swegle and Kyra Valovick** (Faculty Mentor Mrs. Jessi Znosko)  
*The Effect of Volunteering on Stress Hormone Levels of Graduate Student Volunteers*

**Elizabeth Garri** (Faculty Mentor Dr. Dudley Shotwell)  
*Consent and Sex Ed in the Tobacco Grant Region*

**Katelyn Housler** (Faculty Mentor Dr. Robert Barnwell)  
*Learning from Longwood's Past and its Competitors to Rebrand the College of Business and Economics*

**Cameron Roblewsky** (Faculty Mentor Dr. Lisa Minor)  
*The Misguidance of Sexual Education in the United States*

**Kelsey Ostrowski, Emma Carroll, and Colton Thames** (Faculty Mentor Dr. Jackie Daniel)  
*Assessing the Need for a Campus-Wide Sexually Transmitted Infection Clinic at Longwood University*

**Madison Lockamy and Emily Mothersbaugh** (Faculty Mentor Dr. Chris Bjornsen)  
*Instagram Use and Personality Traits*

**Emily Mothersbaugh and Madison Lockamy** (Faculty Mentor Dr. Chris Bjornsen)  
*The Effect of Instagram on Appearance, Self-Esteem and Social Approval*

**Danielle Toone** (Faculty Mentor Dr. Kat Alves)  
*Comorbidity of Speech and Language Disorders and Other Related Conditions*

**Jace Frank** (Faculty Mentor Dr. Scott Chapman)  
*The Importance of Frequencies in Sound*

## **Biology**

**Faculty Mentor:** Dr. Consuelo Alvarez  
BIOL 250- Introduction to Genetics and Cell Biology

**Katelin Savage and Roxana Salas**

*SNPs mutations leading to eye color appearance and bitter tasting gene*

**Corbin Winborn and Jamie Slaughter**

*Sneezing vs. Tasting*

**Nadia Mullins and Angel Stanley**

*Cilantro and Eye color SNP's Searching*

**Jacob Davis**

*Heterozygous vs Homozygous Sneeze SNP*

**Ariana Pearson and Marian Nase**

*Distinguishing Genetic Differences Using Personalized SNPs*

**I'vana Cary and Jada Russell**

*Analyzing the Relationship between Bitter tasting, Sneezing and Single-Nucleotide Polymorphism*

**Caleb Edwards and Kaylen Karnes**

*Can We use PCR to find if a Gene is Expressed?*

**Kaysi Bing and Olivia Szego**

*The Study of the Curly Hair SNP*

**Caroline Fornili and Amari Riddick**

*The Search for the Curly Hair Gene*

**Lance Chappell and Kyle Hiatt**

*SNPs or Curly Hair Genes*

**Karleigh Pepper and Lindsay Moore**

*Predicting Genotype of eye color and hair texture with SNPs*

**Britney Armstrong and Nathaniel Mylott**

*PCR and Gel Electrophoresis of Photoc Sneeze SNP*

**Faculty Mentor:** Dr. Erin Shanle  
BIOL 324- Genetics

**Cameron Toddy, Katie Hedrick, and Mitchell Sharry**

*The Effects of Knocking Out ATP7 Gene in Drosophila S2 Cells*

**Rachel Anderson and Emma Rogers**

*PARK7 gene of drosophila edited using Crispr cas9*

**Cecily Hayek, Brianna Cervantes, Abigail Pack and Stephanie Willis**

*Editing the Drosophila Genome using CRISPR- Cas9 to Knockout the WFS1 gene*

**Faculty Mentor:** Dr. Amorette Barber  
BIOL 404- Immunology

**Kelly Tarmon, Jonah Hottinger, Emily Humphries, and Cody Gouyer**

*Can a Soy Diet Mimic the Effects of Estrogen?*

**Marcia Lanasa, Grace Freeman, Carrie Reaver, and Natalie Wood**

*Dual nature of phytoestrogens as both procancer and anticancer agents*

**Emma Rogers, Ryan Servis, and Talbot Thames**

*The Effects of Dioxin-like Polychlorinated Biphenyls (PCBs) on the Development of Myeloid Suppressor Cells*

**Kayla Cooksey, Adrianna Doggett, Debbie Pitt, and Maya Young**

*Effects of Phytoestrogens - Lycopene and Trans-Resveratrol - on the development of myeloid-derived suppressor cells (MDSC)*

**Raquel Perez, Tatyana Green, Haley Bresnahan, and Matthew Jones**

*Effects of estrogen-mimicking compounds, progesterone and estriol, on myeloid-derived suppressor cell development*

**Faculty Mentors:** Dr. Mark Fink and Dr. Bjoern Ludwar  
BIOL 488- Senior Capstone

**Reece Theakston**

*Conservation of marine life*

**Tessa DeWalt**

*Strategies for oyster restoration and potential effects on public health*

**Catherine Swinsky**

*Function of bird tails during slow flight across species*

**Makayla Davis**

*Which birth control method is the most effective for women's health?*

**Bailey Gadberry**

*Population Analysis of Farmville, Virginia Birds Using Citizen Science Data*

**Earl Long**

*The Use of Biofertilizer Versus Chemical Fertilizer*

**Jessica Cagnina**

*Can Coral Farming Combat Coral Bleaching?*

**Caitlin Harris**

*Therapeutic Intracellular Delivery of Insulin via Bacterial Secretion Systems to Treat Diabetes*

**Taylor Johnson**

*As Tiger Habitat Decreases Limiting Capacities Should be Examined*

**Kayla Cooksey**

*Therapies and Treatments for Alpha-Gal Allergy Syndrome (AGAS)*

**Sarah Kamen**

*The Effects of Assisted Reproductive Technology on Canid and Felid Reproduction*

**Alyssa Oppedisano**

*Effect of Sediment Contact on Leaf Litter Decomposition*

**Brandon Hastings**

*Investigating the use of geckos as alternative pollinators*

**BrianaSmith**

*Male Contraception*

**Matthew Jones**

*How Modifications To The Bacterium Ideonella Sakaiensis Could Relieve The Burdens of Plastic Pollutions*

**Taylor Alvey**

*What are the potential applications of magnetotactic bacteria in medicine?*

**Talbot Thames**

*Overview of Health Consequences in the Ketogenic Diet and Efficacy in Treating Type II Diabetes*

**Megan Curry, Jonah Hottinger, Aliyah Panizzi, and Natalie Wood**

*Is Plastic Use Worth the Environmental Cost?*

**Jessica Savas, Jessica Knox, Cody Gouyer, and James Gallagher**

*Gene editing: taking the wheel of evolution*

**Hannah Hatke, Megan Bland, Jada Russell, and Emily Humphries**

*The Organ Crisis: Donors & Transplants*

**Hannah Davis, Tyra Nevers, and Debbie Pitt**

*Genetic modification: a new tool against mosquito-borne diseases?*

## **Chemistry and Physics**

**Faculty Mentor:** Dr. Benjamin Topham  
CHEM 403- Advanced Chemical Lab Problem Solving II

**Jamie Breunig and Hannah Meyls**

*Analysis of Arsenic in Wine Using XRF*

**Sarah Ghali**

*Metal contamination in drinking water due to metal corrosion*

**Bethany Adams**

*Green Chemistry Alternatives: Using Iron as a Catalyst*

**Joshua Walker**

*Phytoremediation of environmental contaminants*

**Faculty Mentor:** Dr. Kenneth Pestka II  
PHYS 223- University Physics II Lab

**Isaac Both**

**Rayshad Lindsay**

**Connor Rosenberry**

**Rebecca Alvarez**

**Andrew Burghaus**

**William Coleman**

**James Cox**

**Ibrahim Madey**

**Tyler Ott**

**Zachary Racine**

**Nicholas Zebhideh-Strain**



## Communications Sciences and Disorders

**Faculty Mentors:** Dr. Alison King and Dr. Lissa Power-deFur  
CSDS 450- Speech Science

**Shavon Lewis, Victoria Shirey, Raven Laibstain, and Megan Smith**

*Flame Challenge: Sound Properties*

**Kasie Fowler, Mackenzie Barnes, Jordan Elder, and Latoya Butler**

*Resonance*

**Amber Gordon, Jessica Pressley, William Tanner, and Nanci Arevalo**

*Flame Challenge: Respiration*

**Alyssa DiMarino, Jamie Wagner, Mallory Gallagher, and Vanessa Barahona Hickerson**

*How Speech Travels through the Ear and how the Brain interpreted it*

**Abigail Johnson, Hannah Millirons, Emily Arnold, Laura Panak, and Jaclyn Owens**

*Phonation and the Bernoulli Effect*

## English

**Faculty Mentor:** Dr. Scott McDarmont  
ENGL 400- Advanced Writing Seminar

**Brianna Pilkington-King**

*How to Teach History in the 21st Century*

**Brandon Miller**

*Global warming in Virginia*

**Alexis Powers**

*What's Wrong with the Prison System*

**Tra'Dayja Smith**

*Unemployment*

**Avenel Brooks**

*Hackers in the workplace*

**Nathan Owens**

*Use of Force in Policing*

**Cristen McKenzie**

*Teacher Salary in the United States*

**Zachary Rector**

*How do Career Centers help prepare students to enter the workforce post-graduation*

**Lauren Razzetti**

*Nutrition in the Farmville area*

**William Gill**

*Something with working out. What is good for you versus not.*

**Sarah Kamen**

*Effects of Climate Change on Earth's Organisms*

**Ashley Dykes**

*Lower Literacy Levels in Low-Income Households*

**Briana Smith**

*Natural Hair Don't Care*

**Leslie Whiting**

*Kinesiology Controversy's*

**Christopher Giles**

*The Impact of Anthropology and Archaeology*

**Rachel Parks**

*Assistive Technology in SPED*

**Dan Yarbrough**

*The Arts in the Classroom*

**Adrienne Fletcher**

*The Effects of Music Tempo on the Body*

**Mackenzie Roberts**

*Capital Punishment in Different Societies*

**Emma Johnson**

*Coral Bleaching*

**Gentry Dyson**

*Effects of climate change on the economy*

**Ashley Allen**

*Capital Punishment*

**Jacob Van Scoyoc**

*Police Portrayal in the Media*

**Sarah Kelley**

*The Analysis of Unfair Stigmatism Against Psychopaths*

**Nick Hessler**

*Resistance Training and You*

**Shore Lakey**

*Inclusion in the Classroom*

**Riley Hayden**

*Is teacher pay reasonable?*

**Matthew Waterman**

**Dylon Monaghan**

## **Graphic and Animation Design**

**Faculty Mentor:** Dr. Keith Cummings

GAND 462- Senior Seminar

**Christopher Hodge**

*Adaptive Toys*

**Darby Lutz**

*Taste Not Waste*

## **Health, Athletic Training, Recreation, and Kinesiology**

**Faculty Mentor:** Dr. Robert Blaisdell  
KINS 470- Research Methods

**Lauren Roten, Erin Dwinell, Molly Barkman, and Jordan Howard**

*Collegiate female performance in high intensity interval training dependent on caffeination of coffee*

## **History**

**Faculty Mentor:** Dr. David Coles  
HIST 461- Senior Seminar

**Kayla Webb**

*History of Witchcraft in Early Modern Europe*

**Jesse Plichta-Kellar**

*Absent From the Bar: A History of Absinthe in the United States 1790-2007*

## **Integrated Environmental Science**

**Faculty Mentor:** Dr. William Collier  
ENSC 402- Environmental Decision Making

**Brandon Weaver, Katheryn Kindy, and Alexey Lesnichi**

*Island Countries: Evacuate or Adapt*

**Nikki Copenhaver and Becca Aylor**

*Comparing Existing Mitigation Plans Concerning Wildlife-Agriculture Interactions to Ideal Environmental Decision Making Practices*

**Travis Wood and Coleman Behne**

*The Atlantic Coast Pipeline's Effect on Wetlands in Virginia*

**Braxton Harrup and Jennifer Betz**

*Outer Banks Stormwater Management*

**Graham Brown and Jacob Jennings**

*The Effect of Walleye Reintroduction on the Staunton River*

## Modern Languages

**Faculty Mentor:** Dr. Renee Gutierrez  
SPAN 352- Spanish American Civilization and Culture

**Chrishon Dollard**

*La violencia de El Salvador: ¿De dónde vino?*

**Tabitha Calvin**

*Los indígenas versus los gobiernos federales*

**Madison Koontz**

*Violencia Obstétrica en Argentina*

**Tiphany Taylor**

*El afrocubanismo*

**Pedro Lorrain**

*Chile 1970 hasta el día de hoy: Los cambios por el régimen militar*

**Elvira Núñez**

*La corrupción y el crimen organizado en México: Influencias de las organizaciones narcotraficantes*

**Carrie Reaver**

*Abordando disparidades de salud en las comunidades latinas de los Estados Unidos*

**María Sáez**

*Las influencias del Chapo en la sociedad*

**Faculty Mentor:** Professor Heather Edwards  
FREN 402- Advanced Conversation and Phonetics

**Samuel DiLandro**

*Le Français Accentué [Accentuated French]*

## Music

**Faculty Mentor:** Dr. Pamela McDermott  
MUSC 205- Choral Ensemble- Chamber Singers

**Annastasia Marle**

*Leadership in Conducting and Diversity in Music*

**Faculty Mentor:** Dr. Pamela McDermott  
MUSC 405- Camerata Singers

**Devin Rivera**

*Diversity in Choral Leadership; Classroom Management; A Cappella Composition*

**Breanna Phoenix**

*Empowering Treble Voices*

**Zachary Fortune**

*Navigating the Male Voice*

**Abigail Joyner**

*Musical Leadership: From Analysis to Performance*

## Nursing

**Faculty Mentors:** Dr. Pamela Crowder and Dr. Theresa Kennon  
NURS 230- Foundations of Nursing Practice

**Aydan Drake, Hannah Deacon, Amanda Newman, and Rebecca Anderson**

*Effects of Early Mobilization of Hospitalized Patients based on Evidence Based Practice*

**Hannah Lawrence, Lauren Buhls, and Samantha Osterman**

*Preventing Hospital Acquired Infections*

**Ashlyn Yevchak, Issy Voss, and Kelsey Mawyer**

*Nursing Staffing Ratios*

**Julia Whitt, Morgan Davis, and Julia Bass**

*Is Florence Nightgailes Theory still Effective in Todays World?*

**Kaitlyn Huff, Aynsley Williams, Emily Arrington, and Carolina Leone**

*Effects of Technology in the Nursing Practice*

**Kaeli Somerville, Journey McMillian, Sydney Kuester, and Mackenzie Hodge**

*Effectiveness of Hand-washing vs. Hand Sanitizer*

**Kayla Bailey, Hannah Dankenbring, and Ashley Bungcayao**

*Recognition and Management of Behavioral Disturbances in Dementia Patients*

**Caroline Nham, Estela Hurd, and Mayana Hamilton**

*Gold Standard for NG tube placement*

**Grace Jones, Peyton Romer, and Timothy Bolton**

*Bed Baths: Soap and Water vs. Wipes*

**Ashley King, Danielle Eskow, and Mikayla Schockley**

*Infection Control*

**Lily Gamble and Madison Taylor**

*The Effect of Spaces on Hospital Admission Rates of Asthma Patients*

**Brooke Richard, Tatum Newton, and Tyler Zier**

*What are the common nurse staffing issues in a health care setting?*

**Abby Mills and Macy Franchebois**

*How Vaccinations in Children Prevent the Transmission of Diseases using Evidence-Based Practice*

**Grace Auld, Hope Barnhart, Kelsey Swegle, and Ryleigh Turner**

*Negative Effects of Restraint Use*

**Navy Stevens, Kayla Mosebrook, Morgan Tharpe, and Madison Wessells**

*The Importance of Catheter Care in Nursing Practice*

**Bobbie Umberger, Haley Gordon, and Hannah Irons**

*The Effectiveness of Hand Hygiene: Hand Washing versus Hand Sanitizing*

**Hannah Ramey, Sarah Katherine Stansell, Selena Carrera, and Delana Person**

*Best Clinical Practices To Prevent Complications Associated With IV Use*

**Brittany Smith, Rebecca Long, and Abigail Clark**

*Music Therapy: A way to help patients experiencing acute or chronic pain*

**Hannah VanHoose, Stamos Loucas, and Joelle Harthun**

*Benefits of Using Wound Vacuum Therapy*

**Faculty Mentors:** Dr. Jennifer Hutchinson

NURS 360- Introduction to Research and Evidence Based Practice

**Crystal Rosenbaum and Cameron Roblewsky**

*Benefits of in person translators on patient safety*

**Kaitlyn Yasnowsky and Samantha Osterman**

*The use of Music Therapy for treatment of depression*

**Sara Jane Anderson and Karlie Walter**

*For incontinent patients does the use of chuck pads reduce the future risk of Genitourinary related infections compared with briefs*

**Searra Richardson and Bailey Dallas**

*Hydrocolloid versus Silver Dressings on Infection of Surgical Incisions*

**Katie Loomis and Kaitlin Harris**

*Position is Pertinent*



**Tiffany Carter and Karissa Bright**

*For nurses and other medical professionals, is the use of hand sanitizers compared to standard hand-washing, just as effective in reducing the future risk and spread of infection?*

**Lauren Richardson and Kalie Creasy**

*The Use of Female Catheters*

**Taylor Keeler and Cheyenne Brown**

*The positive impacts of increased rounding to reduce falls in hospitalized patients*

**Tatum Newton and Timothy Bolton**

*How can newly graduated nurses avoid and deal with moral distress and burnout?*

**Hannah Arnold and Sarah Spencer**

*How to Help Pediatric Autistic Patients Feel Comfortable in a Clinical Setting*

**Kasey Brill and Maureen Dalton**

*Performing ACE screenings on elementary aged children*

**Amanda King and Taylor Tyree**

*Therapeutic Hypothermia and its use in Patients who have Experienced Out-of-Hospital Cardiac Arrest (OOHCA)*

**Landen Horton and Mary Waldrop**

*Treatment options for Prehypertension*

**Shannon Lyons and Molly Mancini**

*Are preterm infants who have been breastfed at an increased risk for undernutrition compared with full-term infants who are breastfed without complications?*

**Savannah Johnson and Carie Sutliff**

*Mental Health in Adolescents and the Importance of Seeking Help*

## Psychology

**Faculty Mentors:** Dr. Stephanie Buchert and Dr. Tim Ritzert  
PSYC 461- Senior Seminar

**Jeancarlo Siles and Scott Cast**

*The Effects of Message Intensity of Climate Change and Intentions of Future Behavior*

**Haley Akers, Destiney Houser, and Taylor Johnson**

*Context Effect of Music on Memory*

**Phillip Barker, Tobias Knappenberger, and Emily Randall**

*The Effect of Acceptance and Commitment Therapy on Distress*

**Alyssa Tinston and Dayna Rouse**

*The Effects of Mental Health Labels on Stigma*

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