



FALL 2022
STUDENT SHOWCASE FOR
RESEARCH
& CREATIVE
INQUIRY

Longwood University's campus-wide student showcase is open to all who wish to attend. Students will present their projects in the form of posters, oral presentations, and performances.

WEDNESDAY • 16 NOVEMBER 2022 • 1 — 5:30 P.M.

Table of Contents

Acknowledgements.....	5
Fall 2022 Showcase Summary Schedule	6
3-Minute Presentation Competition.....	7
Theater 488 – Integrated Arts Theater, Live Performances.....	8
MUSC 385 – Chamber Music, Live Performances	8
ART 360 – Women in the Visual Arts, Live Exhibition	8
BIOL 450- Biology of Cancer, Oral Presentations.....	9
BIOL 251- Introduction to Ecology and Evolution, Oral Presentations.....	10
Independent Research, Oral Presentations.....	11
Cormier Honors College Projects	11
Independent Research Projects	11
Longwood Senior Thesis Projects	11
ENGL 461- Senior Seminar: Literary Criticism, Oral Presentations	12
Poster Session I 1:00 – 2:00 p.m.....	13
GEOG 275 - Intro to Geographic Information Systems	13
HIST 407 and HIST 414- Seminars in United States and European History- World War I	14
HIST 422- Seminar in Non-Western History	15
PHYS 222- University Physics Lab I	15
PSYC 461 - Seminar in Psychology	16
Poster Session II 2:10 – 3:10 p.m.	17
BIOL 326-Cell Biology	17
NEUR 405- Interdisciplinary Neuroscience Applications.....	17
NURS 360-Introduction to Research and Evidence-Based Practice	18
GEOG 465 - Advanced Topics in GIS	20
POSC 461- Political Science Senior Seminar.....	20
EDUC 245- Human Growth as a Function of Social, Political, and Economic Institutions	20
Poster Session III 3:20 – 4:20 p.m.	22
Cormier Honors College Posters	22
Perspectives on Research in Science and Mathematics (PRISM) - Summer 2022	22
BIOL 434 - Ecosystem Ecology	23
EASC 211 - Environmental Geology	24
SPED 389 - Survey of Exceptional Children.....	24
Poster Session IV 4:30 – 5:30 p.m.....	26

Independent Research Posters..... 26
BIOL 250 – Introduction to Genetics and Cell Biology 27
BIOL 488 – Senior Capstone in Biology 27
SPED 451 – Introduction to Autism Spectrum Disorder 28

Acknowledgements

Student Showcase Organizing Committee

Amorette Barber, Chair
Bob Barnwell
Kerri Cushman
Steven Hoehner
Jennifer Hutchinson
Alison King
Sarah Porter
Timothy Ritzert
Mary Tackett
Yulia Uryadova
Lauretta Werner
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
Digital Education Collaborative
Greenwood Library
College of Graduate and Professional Studies
University Center and Student Activities

Fall 2022 Showcase Summary Schedule

Performances

Communication Studies and Theatre Arts Center- Room 101

1:00-3:00 P.M- THEA 488- Integrated Arts Theater

Molnar Recital Hall

3:00-3:30 P.M- MUSC 385- Chamber Music

Visual Arts

Bedford Gallery

9:00 A.M.-5:30 P.M- ART 360- Women in the Visual Arts

Oral Presentations

Rotunda – Room 108

1:00-1:45 P.M-. BIOL 450- Biology of Cancer

2:00- 3:15 P.M- Cormier Honors College for Citizen Scholars

3:30-4:15 P.M- Independent Research Projects

4:30-5:00 P.M- Longwood Senior Thesis Projects

Rotunda – Room 115

1:00-3:30 P.M- BIOL 251- Introduction to Ecology and Evolution

Rotunda –Virginia Room

1:30-5:30 P.M- ENGL 461- Senior Seminar, Literary Criticism

Poster Presentations

Poster Session I- Blackwell Ballroom, 1:00 – 2:00 P.M.

GEOG, HIST, PHYS, PSYC

Poster Session II- Blackwell Ballroom, 2:15 – 3:15 P.M.

BIOL, EDUC, GEOG, NEUR, NURS, POSC

Poster Session III- Blackwell Ballroom, 3:20 – 4:20 P.M.

Cormier Honors College for Citizen Scholars

Perspectives on Research in Science and Mathematics (PRISM)

BIOL, EASC, SPED

Poster Session IV- Blackwell Ballroom, 4:30 – 5:30 P.M.

Independent Research, BIOL, SPED

3-Minute Presentation Competition

The 3 Minute Presentation Competition is the newest addition to the Fall Student Showcase for Research and Creative Inquiry.

Three minute thesis (3MT) is an international, graduate-level initiative that started in Australia at Queensland University and is now used by university programs across the United States. At Longwood, we will hold a Three Minute Presentation (3MP) competition as a modified version of 3MT. The 3MP allows students to share how their research, inquiry, and studies will help them make a difference in their chosen careers through a highly polished and practiced three-minute oral presentation. 3MP presenters are allowed to have one slide and presentations need to be appropriate to non-specialist audiences so anyone can understand the potential impact of their research.

Check out the Fall 2022 3MP Competition submissions on the dedicated Fall 2022 3 Minute Presentation Competition site on Longwood University's Digital Commons. The winners of the competition will be announced after the completion of the Fall Student Showcase.

<https://digitalcommons.longwood.edu/fall3mp/>



Theater 488 – Integrated Arts Theater, Live Performances

CSTAC 101

Faculty mentor, Dr. Ronda Scarrow

1:00-1:30

Jordan Nguyen, Emma Lewis, Kensington McLoone, Kaya James

Integration of Dance into the Elementary Classroom

1:30-2:00

Jenna Anderton, Savanna Bryant, McKenna Bunting, Amber Burns, Emma Carlstrom, Emily Corey, Ashley Derrick, Taylor Fischer, Candice Jackson, Kaitlyn Pisano, Abby Shaffer, Angela Shelton, Lydia Storey, Erica White, Haley Woodring

Integrating the Arts into All Subjects

2:00-2:30

Rebecca Foley, Shelby Irby, Geraldine Greenway, Makayla Hancock, Makaela Seal, Delaney Wright, Daniella Rodriguez Bresnahan, Briahna Stacey

Visual Arts and Theatre Integration in the Classroom

2:30-3:00

Kylie Casey, Emily Byers, Abby Conry, Shinesha Crumbley

Integrating Music into the Classroom

MUSC 385 – Chamber Music, Live Performances

Molnar Recital Hall

Faculty sponsor, Dr. Laurreta Werner

3:00-3:30

Daisy Colgin, Amber Maliangos, Devon Shifflett

Music Department Showcase

ART 360 – Women in the Visual Arts, Live Exhibition

Bedford Gallery, 9:00am – 5:30pm

Faculty sponsor, Dr. Terri Sabatos

Victoria Adame, Payton Bunting, Maggie Dodge, Matt Guthinger, Elisha Hill, Destiny Hunt, Kat Leonard, Audrey Macmeekin; Kat Marshall, Katie Mcsweeney, Louisa Michie, Vega Overstreet, Emily Robertson, Stephon Slater, Ezri Kahless, Sam Taylor, Nat Velez-Camp, Sarah Wilson, Brenna Zirkle,

Well-Behaved Women Seldom Make (Art) History: Women and Art from the LCVA

BIOL 450- Biology of Cancer, Oral Presentations

Rotunda 108

1:00 – 1:45 p.m.

Faculty mentor, Dr. Amorette Barber

1:00-1:15

Cassandra Poole, Abby Pack, Tucker Marshall, Elizabeth Whitehead

The Genetics of Skin Cancer: What Genes Drive the Development of Basal Cell Carcinoma, Squamous Cell Carcinoma, and Melanoma?

1:15-1:30

Jamie Slaughter, Lloyd Dominguez, Kylee Wright, Heidi Parker-Combes, Xavier Holman

How different mutations affect prognosis of glioblastomas

1:30-1:45

Amari Riddick, Anouk Rudd, Hailee Banks, Alexis Henry, Samari Gibson

What are the genetic differences between serous ovarian cancer and small cell carcinoma of the ovary?

BIOL 251- Introduction to Ecology and Evolution, Oral Presentations

**Rotunda 115
1:00 – 3:30 p.m.**

Faculty mentor, Dr. Ben Campbell

1:00-1:15

Royce Coleman, Nikki Kulkarni, Hunter Wright
Ecological Field Research

1:15-1:30

Teresa Orellana, Jade Riddle, Angel Stanley
Ecological Field Research

1:30-1:45

Grace Cohen, Nathan O'Dell, Grace Smith, Moorea Whitfield
Ecological Field Research

1:45-2:00

Caroline Avery, Miranda Helfenbein, Lilian Jubb, Nicole Pinder
Ecological Field Research

2:00-2:15

Lucy Ellis, Cara O'beirne, Emma Thompson
Ecological Field Research

Faculty mentor, Dr. Sujan Henkanaththegegara

2:30-2:45

Jack Van Straten, Ella Puckett, Matthew Fitzer, Taylor McKinney
Impacts of Urban Development on Vulture Population Dynamics

2:45-3:00

Amanda Doty, Helena Loucas, McKenzie Moore
Aggression Trends between Invasive and Native Crayfish in Virginia

3:00-3:15

Zoey Graybeal, Madelyn Gilson, Matthew Harvey, Christian Higgins
Does Weather Effect Bird Species Diversity in Lancer Park?

3:15-3:30

Samantha Collins, Caleb Swecker, Abigail Squires, Gabriella Giannelli
Assessment of Diversity of Species at Lancer Park Using Camera Traps

Independent Research, Oral Presentations

Rotunda 108
2:00 – 5:00 p.m.

Cormier Honors College Projects

2:00-2:15

Christopher Sparks, (*Faculty sponsor, Dr. Sean Barry*)
Masculinity in American Movie-Musical Films

2:15-3:15

Emma Weber, Olivia Wydner, Tinsley Abbott, Sabrina Robles, Benjie Abuan, Bailey Goldman, Mackenzie Lavendar, Lesly Ventura, Kelly Sinclair, (*Faculty sponsor, Dr. David Magill*)
Racial Representation in Media

Independent Research Projects

3:30-3:45

Amber Schmitt, (*Faculty sponsor, Dr. Erin Waggoner*)
Impact of Mediated Imagined Interaction Hypothesis on LGBTQ+ discloser

3:45-4:00

Annalise Crawford, Gracie Hess, Macesin Smith, (*Faculty sponsor, Dr. Lee Bidwell and Dr. JoEllen Pederson*)
Ensuring Inclusivity: A qualitative study of Sociology Alumni

4:00-4:15

Madison Swift, Joshua Ayala (*Faculty sponsor, Dr. Sean Ruday*)
What The Fuck Is Wrong with Fuck

Longwood Senior Thesis Projects

4:30-4:45

Joshua Bain, (*Faculty sponsor, Dr. Eric Laws*)
The Effect of Aphantasia on Visual Memory Retention

4:45-5:00

Tinsae Alem, (*Faculty sponsor, Dr. Benjamin Topham*)
Designing Single Molecule Diodes

ENGL 461- Senior Seminar: Literary Criticism, Oral Presentations

The Virginia Room

1:30 – 5:30 p.m.

Faculty mentor, Dr. John Miller

1:30 p.m. to 2:30 p.m. Critical Race Theor(ies)

Timothy Eppes, “‘Black Side of the Rainbow’: Black Queerness and the White Focus on the Black Body in *Paris is Burning*”

Phoenix Turner, “‘I am the Writing on the Wall’: *Candyman*, Black Horror, and Generational Trauma”

Samuel Creel, “‘Signifyin’ on Greek Myth: Reflecting Black Modern Life in Abstract Hip Hop”

2:45 p.m. to 4:00 p.m. Texts and Their Readers

Madison Gregory, “If you see it in the right way”: *The Office* and Horizons of Expectations

Myeisha Hamilton, “Reception Theory and F. Scott Fitzgerald’s *The Great Gatsby*”

Renny Sandham, “The Textual Deaths and Critical Lives of Sisters, Wives and Daughters: Reception Theory and the Women of Edgar Allan Poe”

Ireland Seagle, “‘The Battle between Conformity and Rebellion’: The Evolution of Critical Responses to Charlotte Brönte’s *Jane Eyre*”

4:15 p.m. to 5:15 p.m. Historical Materialism, Memory, and Monsters

Daniel Alvarez, “Feminism and Friedrich Engel’s *Origin of the Family, Private Property and the State*”

Breanna Smith, “Queering Trauma: Analyzing Alison Bechdel’s *Fun Home*”

Coleman Vaughn, “Collective Unconscious in H.P. Lovecraft’s *The Call of Cthulhu*”

Poster Session I 1:00 – 2:00 p.m.
Blackwell Ballroom

GEOG 275 - Intro to Geographic Information Systems

Faculty Mentor, Dr. Chris Labosier
Posters 1-14

Jayla Jackson

Correlation between Terrorism and Economic Disadvantages in the Middle East and Northern Africa

Pierson Barnabei

CWD effects on deer population

Savannah Moody

Shipwrecks: Artificial Reefs

Dylan Duke

Loss of Farmland in California and its effects

Devon Southard

Can Figure Out Someone's Age Based Off Their Name Alone?

Amanda Beville

Effects of Coal Mines in Virginia

Abigail Vaughan

Historians job opportunities and residencies

Truman Blaha

Carbon output versus clean energy consumption of US states per capita

Rebecca Mills

Recycling Habits in Virginia

Quincey Urban

Changes in Sea Level's Impact on Washington State's Population

Colin Malleck

Drought Effects on Unemployment

Joel King

Impact of invasive silver carp in Mississippi river basin

Mary Spengler

The Effect of Precipitation on Wildfires in New Mexico

HIST 407 and HIST 414- Seminars in United States and European History- World War I

Faculty Mentor, Dr. David Coles

Posters 15-32

Hailey Belote

Depictions of Women in American WWI Propaganda Posters

Daniele Milam

The Choctaw Code Talkers of World War I

Alexander Dale

World War I Infantry Tactics

William Towe

The Fourteen Points and The Outcome

Henry Branch

Austria-Hungary on the Italian Front in the First World War

James Pelina

Anti-German Sentiment in the United States

Joseph Coward

How Women aided the U.S. during WWI

Mitchell Carey

The Espionage and Sedition Acts of World War I

Jordan Myers

Changes in Artillery during World War I

Eric Schesventer

The Use and Effects Chemicals Warfare and Weapons During and After the First World War

Devon Shifflett

Causes of British Casualties during the Battle of the Somme Jul 1, 1916 – Nov 18, 1916

Jacob Strader

Shell Shock in the First World War

Juliana Bianco

British Nurses in World War I

Lucy Klisz

The Political and Military Impact of Russia Leaving World War I

Jonathan Holmes

Serbian Nationalism Started WW1

Hayden Bradbury

The Miracle of the Marne

Megan Harrigan

British Conscription During World War I

HIST 422- Seminar in Non-Western History

Faculty Mentor, Dr. William Holliday

Posters 33-40

Korey Brown

Guatemala's Government Lead Violence Against the Ixil People

Louisa Michie

The Rise of Evangelical Protestantism in Native Bolivian Communities

Jerome Unser

The Rise of the EZLN

Abigail Frazier

The Influence of Liberation Theology within the Zapatista National Liberation Army (EZLN)

Cindy Smith

President Alberto Fujimori's National Program and Indigenous Women's Rights or Reproductive Health and Family Planning

Joseph Jones

Bolivian MNR, resistance and revolution

Logan Berrier

FUNAI's Representation of Indigenous Peoples of Brazil

PHYS 222- University Physics Lab I

Faculty Mentor, Dr. Michelle Parry

Posters 41-46

Alec Corwin, Rebecca Taylor, Michael Everman

Measuring Rotational Inertia of a Ring

Ryan Urban, Tim Slater, and Max Rucker

Finding the Acceleration of Gravity with Inclined Tracks

Tydru Light, Matthew Cecka, and Ashley Cook
Measuring Centripetal Force by Rotation and Gravity

Andrew Short, Avery Smith, and Bryson Talbert
Using a Triple Beam Balance and Other Methods to find the Buoyant Force of Different Substances

Amelia Carlile, Ava Davis
Specific Heat Capacity

Eric Chorba, Ethan Pettyjohn, Kevin Warunek
Conservation of Momentum

PSYC 461 - Seminar in Psychology
Faculty Mentor, Dr. Timothy Ritzert
Posters 48-56

Alexiss Brown, Noah Coppa, and Lauren Howard
The Effects of Suspect Biological Sex and Sources of Evidence on Mock Jury Decision-Making

Megan Baker, Reagen Kanagawa, and Fabio Podmelle
The Effect of Motivation Style on Performance

Robert Ball and Ariel Birkholz
Sarcasm in Text Messaging

Hailey Lux, Meagan Munley, and Mckenzie Rigney
The Effect of Mood on Prosocial Behavior

Emily Cedron, Sierra Mottley, and Kadi Leonor-Caballero
Differential susceptibility to distraction when memorizing words based on personality

Molly Flora, Kylie Gannon, and Jasmine Roberts
The Impact of Message Framing on Climate Change Attitudes

Joshua Bain, Emily King
The effect of intervention type on risk perception and self-efficacy in rock climbing

Abigail Tackett, Bryce Woolwine, and Haleigh Nichols
How Electronic Devices in a Classroom Setting Impact Working Memory

Poster Session II 2:10 – 3:10 p.m.
Blackwell Ballroom

BIOL 326-Cell Biology

Faculty Mentor, Dr. Dale Beach
Posters 1-6

Zoe Averett, Bianca Minter

Hot and Sour: The Secret Recipe for Denaturation

Joshua Couch

Monosaccharide Present in Yeast Culture Affects Flocculation

Mackenzie Woody, Abigail Henderson

The effect of sugars on flocculation levels in the yeast strain WLP002

Amy Helms, Xavier Holman

The Flocculating Dead

Quinn Kehoe, Carolyn Blackwell

Yeast flocculation in the Presence of Metals and Non-metals

NEUR 405- Interdisciplinary Neuroscience Applications

Faculty Mentor, Dr. Adam Franssen
Posters 7-9

Hailee Banks, Abigail Pack, and Alyssa Gibson

Early Brain Development: What services should you look for in childcare?

Joshua Bain, Allison Swicord

Educating Athletes on the Long-Term Effects and Damages of Repeated Concussions

NURS 360-Introduction to Research and Evidence-Based Practice

Faculty Mentor, Dr. Jackie Daniel

Posters 10-32

Lauren Cerretani, Eliana Draper

Do patients with COPD have more of a decrease in their PaCO₂ level on low-flow oxygen during exacerbations compared with patients on high-flow oxygen?

Abby Blevins, Jordyn Kepler

In individuals diagnosed with depression, does physical activity decrease suicidal ideations when compared to individuals diagnosed with depression who do not participate in physical activity?

Jacob Ryan, Maddison Guest

Does Treating Depression with Selective Serotonin Reuptake Inhibitors Decrease the Incidence of Developing Dementia?

Shanya Boyd, Ke'asia Nichols

Does the use of a metered dose inhaler decrease the time of asthma exacerbation, when compared to nebulizers, for pediatric patients suffering from asthma?

Abigail Roller, Joely Clawson-Keeton

In adult patients who had COVID-19, does invasive ventilation therapy increase the development of longterm symptoms?

Kathryn Oylear, Sophia Stemen

Managing central venous catheters using heparin versus normal saline

Caroline Fairbanks, Molly Godwin

Do COPD patients who use low-flow oxygen therapy have less complaints of dyspnea compared to COPD patients who use high-flow oxygen?

Rebecca Chung and Anastasia Edwards

Do morbidly obese (BMI greater than 40) pediatric patients have an increased incidence of childhood cancer compared to pediatric patients with a normal BMI?

Rachel Rego and La'Diamond Jones

In laboring women, do upright birthing positions such as sitting and squatting result in lower pain scores than traditional birthing positions such as the lithotomy position?

Hailey Harris and Caroline Faulkner

Does cutting the umbilical cord within the first one to three minutes after delivery increase the newborn's hemoglobin level?

Caroline Fairbanks, Molly Godwin

Do COPD patients who use low-flow oxygen therapy have less complaints of dyspnea compared to COPD patients who use high-flow oxygen?

Jared Mitchell, Samia Alshammaa

Best Pressure Injury Prevention Method

Paige Crawford, Kirsten Clark

In new mothers who experience depression and anxiety, is non-pharmacologic treatment more effective in reducing symptoms than pharmacologic therapy?

Melody Crawford, Ilaria Russell

In nurses who care for hospitalized older adults who have dementia, how does receiving dementia care training compared to a lack of dementia training influence the workload and stress in nursing care?

Chanceton Follett, Toryn Green

In patients who have anxiety disorder, does combination therapy improve symptoms more than pharmacologic treatment or psychotherapy alone?

Lauren Lynch and Kasey Clemsons

Does breastfeeding help to lower the risk of developing breast cancer in childbearing women, compared to women who do not breastfeed?

Korey Ellen and Jacynda Ellison

In women of child-bearing age, what are the effects of oral contraceptive use on fertility and pregnancy compared to women of child-bearing age who use barrier methods of birth control?

Aliyah Abasy, Asana Nambiema

In patients with COPD, does participation in pulmonary rehabilitation therapy result in improved functional status when compared to patients who do not engage in this therapy?

Olivia Fitzgerald, Lindsey Lipscomb

In nurses, does use of individual psychiatric interventions and resources as compared to team-based interventions result in a greater reduction of burnout?

Emily Bennett, Chloe Morris

In patients with pressure injuries, do wound care devices lead to improved wound healing when compared to normal dressings?

Abigail Martin, Faith Thomas

Among patients with acute ischemic strokes, does tenecteplase have a better outcome for patients by having less residual effects, a faster recovery, and effectively dissolves the blood clot, than tissue plasminogen activator treatment?

GEOG 465 - Advanced Topics in GIS

Faculty Mentor, Dr. Ravi Sankar

Posters 33-38

Danielle Clarke-Bradley

Monitoring Landscape Changes Using GIS and Remote Sensing Along the Sandy River Reservoir, Virginia

Ivy Shifflett

Monitoring Coastal Morphology in Smith Island, Maryland - A Citizen Science Based Project

Randolph Zerick

Investigation Nuclear Power within the Coastal Regions of Virginia

Phil Anderson

An Updated Variable Risk Analysis of Environmental Hazards in Westmoreland County, Virginia

Jerry Dunford

Dune Migration and Dynamic Equilibrium of Jockey's Ridge State Park North Carolina

John Bollinger

Evaluating Social Vulnerability and Flood Hazard Risk Using QGIS for Westmoreland County, Virginia

POSC 461- Political Science Senior Seminar

Faculty Mentor, Dr. Eric Hodges

Posters 39-41

Thomas Carr

Xi Jinping's Impact on Chinese Foreign Policy and Relations with Taiwan

Shana Anderson

The effect of traditional and social media on a United States President during a time of crisis.

EDUC 245- Human Growth as a Function of Social, Political, and Economic Institutions

Faculty Mentor, Dr. Aftab Khan

Posters 42-54

Reese Mulé, Alysia Wessells

The Effects of Authoritative Parenting on the Socio-Emotional Development of Children.

Katlyn Offield, Alexis Beavers

How adoption affects a child

Brandon Bateman, Cassandra Nelson

Children with Alcohol Abusing Parents and its Effects on Childhood Development

Grace Sandy, Emily Drumm

Teenage pregnancy and how it affects child development

Delaney Rever, Dionna Welton-Boxley

Sibling Separation

Mikaela Stell, Hunter Nolan

How adoption affects children cognitively and emotionally

Maccall Warner, Emily Taylor

Favoritism of Children in Divorce

Kayleigh Newman, Russell Eanes

The impact of a single-mother household on child development.

Eryn Meadows, Savannah Lumpkin

Impacts of Military Deployment on a Child's Development

Madeline Andreson

The Impact of Sibling Death on a Child's Development

Laurie Mann, April Kendrick

Effects of Adoption on Childhood Development

Blaise Silverman, Kristina Triebsch

Environmental effects on human growth and development

Justin Haravay

A Disability's Effect on Lives

Poster Session III 3:20 – 4:20 p.m.
Blackwell Ballroom

Cormier Honors College Posters
Posters 1-9

Ebony Arauz Tellez, John Bohannon, Rebecca Mills, Virginia Tam, Isabelle Villarreal, (Faculty sponsor, Dr. Melissa Rhoten)
Determination of Nitrate and Nitrite in Aqueous Media

Stormie Foley, (Faculty sponsor, Dr. Kristopher Paal)
Ethics in Intercultural Communication

Jacob Barker, (Faculty sponsor, Ms. Tena Ewing)
Running Through the History of Marathon Diets

Sjoribel Traverso, (Faculty sponsor, Dr. Ann Bailey)
Simple Pleasures

Nathaniel Wong, (Faculty sponsor, Dr. Haley Woznyj)
International recruitment

Julie Pratt, (Faculty sponsor, Dr. David Magill)
Racial Presentation in Spider-Man: No Way Home

Jensen Tomalesky, (Faculty sponsor, Dr. David Magill)
Racial Representation in "Get Out"

Caitlyn Morley, (Faculty sponsor, Dr. David Coles)
Henry Kissinger's "Diplomacy" and Impacts on today's Foreign Policy

Perspectives on Research in Science and Mathematics (PRISM) - Summer 2022
Posters 10-23

Kylie Levine, Gabriella Bustillos, (Faculty sponsor, Dr. Meg Thompson)
The Impact of Coaching Experience on Concussion Knowledge, Attitude, and Behavior Among Coaches in Secondary Schools in Virginia

Gabriella Bustillos, (Faculty sponsor, Dr. Meg Thompson)
The Impact of Athletic Training Services on Concussion Knowledge, Attitudes, and Behaviors in Secondary School Coaches and Athletic/Activities Directors in Virginia

Brandon Walters and Nicolas Freeman, (Faculty sponsor, Dr. Steven Hoehner)
Maximum Surface Area Monohedra with 8 Vertices on S^2

Nicolas Freeman, Brandon Walters, (*Faculty sponsor, Dr. Steven Hoehner*)

Maximum surface area monohedra with 8 vertices on Unit Sphere

Matthew Wright, (*Faculty sponsor, Dr. Ravi Darwin Sankar*)

Quantifying shoreline change along Hull Springs (Virginia) using satellite observations and drone imagery

Jerry Dunford, Randolph Zerick, (*Faculty sponsor, Dr. Sujan Henkanaththegedara*)

The Potential Impacts of Omari's Crayfish (*Faxonius ovarian*), an Emergent Invasive Crayfish, on Point Endemic Chowanoke Crayfish (*F.virgiensis*)

Randolph Zerick, Jerry Dunford, (*Faculty sponsor, Dr. Sujan Henkanaththegedara*)

Life History and Ecology of the State Protected Chowanoke Crayfish (*Faxonius virginienis*)

Dionna Charity, John Eddy, (*Faculty sponsor, Dr. Julian Dymacek*)

Classifying Nocturnal Flight Calls using Nonnegative Matrix Factorization

John Eddy, (*Faculty sponsor, Dr. Julian Dymacek*)

Using Non-negative Matrix Factorization for NFC Classification

Antonio Harvey, Taylor Clark, Martha Davis, (*Faculty sponsor, Dr. Andrew Yeagley*)

Gallate Esters: A New Antimicrobial Resistance Breaker?

Kylie Gannon and Leah Richardson, (*Faculty sponsor, Dr. Timothy Ritzert*)

Mental Health Stigma and Perception of Support in College Students

David Pack, (*Faculty sponsor, Dr. Jeff Ledford*)

Surface Area of 9 Point Arrangements on the Unit Sphere

Jammie McMurtry, (*Faculty sponsor, Dr. Jonathan White*)

Cell culture studies of lipid functionalized platinum (ii) compounds

BIOL 434 - Ecosystem Ecology

Faculty mentor, Dr. Kenneth Fortino

Posters 24-27

Hunter Croom, Nadia Mullins, Zachary Taylor

The Effect of Human Alteration of Aquatic Environments on Nutrient Limitation

Amari Riddick, Samari Gibson, Amanda Shemro, Melanie Rowland

The effects of pH and sunlight on the growth rate of terrestrial plants

Anouk Rudd, Kylee Wright, Tucker Marshall

The effects of the decomposition of floating and submerged plant detritus on the dissolved oxygen content of water

EASC 211 - Environmental Geology

Faculty mentor, Dr. Ravi Sankar

Posters 28-37

Nina Hederich

Should the US invest in more nuclear-powered plants as an effective technology of climate change mitigation?

Caroline Avery

The Effect of Landfills on Groundwater Pollution

Paityn Barefoot

Exploring the Impacts of Climate Change and Increasing Concentrations of PM 2.5

Sarah Lacy, Ashleigh Mann

Analysis of the Energy Efficiency of Prince Edward County Public Schools

Lucy Ellis

The Effect of Climate Variability on Coastal Communities: A Case Study of Tangier Island, Virginia

Shae Sloan

The effects of sea ice loss on Alaskan coastal communities

Teresa Orellana

Canopy Tree Growth around the Kyanite Mine

Hannah McGarvey

The relationship between human development and deforestation/the effect of human development on deforestation

Ryan Smith

Evaluating Our Reliance on Rare Earth Minerals and Platinum Group Metals Over The Period of 2012 to 2021

SPED 389 - Survey of Exceptional Children

Faculty mentor, Dr. Aftab Khan

Posters 38-51

Caroline Fritz

How painting therapy impacts individuals with intellectual disabilities

Madelyn Cosby, Quinn Jones

Benefits of Therapeutic Horseback Riding for Adolescents with Autism

Adam Finger and Haeley Hall

Augmentative and Alternative Communication Devices such as Proloquo devices and their Effectiveness in Helping Children with Autism

Annastasia Marle

Drumming Improvisation Music Therapy with Students with Emotional Regulation Problems

Lindsey Keup

The Effectiveness of The Wilson Reading Program on Children with Learning Disabilities

Olivia Escobar

Coping power for students with ADHD

Lyndsey Brown

The Effectiveness of SENSE (Social Emotional NeuroScience Endocrinology) theatre on children with Austim Spectrum Disorder

Carly Chiat and Sandra Smilek-Edwards

The Benefits of Text to Speech Resources for Students with Dyslexia

Samantha Scraba

The effectiveness of dynamic sensory seating on students with Autism Spectrum Disorder.

Lauren Tuck and Kaitlyn Holt

Coping Powers Positive Effect on Emotional Behaviors

Ryan Barnebee

The Effectiveness of Classical Music on Students with Down Syndrome

Megan Odenwelder

The effectiveness of online technology programs such as Achieve Academy for Dyslexia.

TJ Calloway and Ahmir Johnson

How social skills training helps students with autism

Sarah Ferris, Kylie Smith

Service Dogs for Children with Autism

Poster Session IV 4:30 – 5:30 p.m.

Blackwell Ballroom

Independent Research Posters

Posters 1-13

Kendyl Titus, (*Faculty sponsor, Dr. Shayla Walker*)

A Student Crisis: A Mental Health Educational Need in Virginia

Sandy Burrill, (*Faculty sponsor, Dr. Sarai Blincoe*)

(Dis)advantages of Device-Free Experiences: A Qualitative Approach

Carrie Flickinger, (*Faculty sponsor, Dr. Eric Laws*)

The History of the Department of Psychology at Longwood University: Organization of Archival Records

Skylar Irvin, Amanda Cedeno, Quinn Kehoe, Xavier Holman, (*Faculty sponsor, Dr. Katie Pennington*)

Exploring the Regulation of PTOV1 Gene Expression Functions

Jamie Slaughter, Ashleigh Mann, (*Faculty sponsors, Dr. Dale Beach and Dr. Kathy Gee*)

Microbial characterization of rainwater harvesting systems

Isabelle Villarreal, Bianca Minter, (*Faculty sponsors, Dr. Dale Beach and Dr. Kathy Gee*)

Metagenomic Fingerprinting of Rainwater Harvesting Systems

Jacob Davis, (*Faculty sponsor, Dr. Kathy Gee*)

Harvested Rainwater Water Quality Evaluation

Helena Loucas, (*Faculty sponsor, Dr. Kenneth Fortino*)

Evaluation of the factors affecting macroinvertebrate community structure in small constructed aquatic ecosystems

Lucy Ellis, (*Faculty sponsor, Dr. Ken Fortino*)

Primary production and ecosystem respiration in a small constructed pond

Nina Hederich, Dr. Kristine DeLong, Kendall Brome, (*Faculty sponsor, Dr. Kenneth Fortino*)

The Stable Isotopic Analysis ($\delta^{18}\text{O}$ and δD) of Ground, Surface and Rainwater in Baton Rouge, Louisiana, and the United States

Nina Hederich, (*Faculty sponsor, Dr. Kenneth Fortino*)

Understanding climate change effects on rainfall patterns in Farmville, VA to assess local groundwater conditions and Appomattox River water discharge.

Victoria Walden, (*Faculty sponsor, Dr. Andrew Yeagley*)

Biofilm Regulatory Properties of Gallate Esters

Gretchen Yoder, Kayli Glauner, (*Faculty sponsor, Dr. Dorothy Suskind*)

Voice of Sexual Assault Survivors at Longwood

BIOL 250 – Introduction to Genetics and Cell Biology

Faculty mentor, Dr. Consuelo Alvarez

Posters 14-22

Nikhil Kulkarni, Taylor Pulley

Single Nucleotide Polymorphisms: Analyzing Genetic Variation

Brooke Bonner, Miranda Helfenbein

Genotype vs Phenotype Analysis of Eye Color

Taylor McKinney, Jade Riddle

Analysis of Phenotypic Expression associated with different genotypes of the blue/brown eyes SNP

McKenzie Moore, Molli White

Are we Homozygous or Heterozygous for the Curly Hair Gene?

Moorea Whitfield, Madelyn Gilson

Analyzing the phenotypic trait using Polymerase Chain Reaction and sequencing.

Gabrielle Quaresma, Kexin Li

Does a dislike for cilantro correlate with a single nucleotide polymorphism associated with cilantro aversion?

Lilian Jubb, Nicole Pinder

Phenotypic Traits Predicting Nucleotide Bases for SNPs

Lauren Mick

Single Nucleotide Polymorphisms: Analyzing Hair Pattern Expression in an Individual

BIOL 488 – Senior Capstone in Biology

Faculty mentor, Dr. Amorette Barber

Posters 23-30

Anouk Rudd

The risk of bacterial contamination in hydroponic farming

Abigail Pack

Using Naltrexone as an Effective Treatment for Binge Eating and Purging Disorder

Tristana Foster

Modify E. Coli with a H2 Histamine Blocker to Decrease Stomach Acid Levels in Gastroesophageal reflux disease (GERD)

Amy Helms

Sjogren's Syndrome Salivary Gland Treatment by Salivary Gland Organoid Replacement

Isabella Riccoboni

Using Chesterfield County, Virginia as a representative sample population to determine the willingness of American households to make changes in their daily lives and at home to help decrease carbon emissions

Amanda Shemro

Impacts of the Black Vulture (*Coragyps atratus*) Upon Omnivorous Mammals and Contact Based Disease Transmission

SPED 451 – Introduction to Autism Spectrum Disorder

Faculty mentor, Dr. Aftab Khan

Posters 31-42

Jenna Anderton, Amber Burns, and Aryanna Colvin

The ABCs of Activity Scheduling for students with Autism Spectrum Disorder

Christina Maynes and Anna Rhodes

Nothing Discrete About It

Erin Daddario, Ashley Derrick, Ainsley Cundy

Incidental Teaching

Carrie van Leliveld, Kelly Park

How can Mind Reading Resource benefit a student with Autism Spectrum Disorder?

Delaney Wright, Savanna Bryant, Hope Hurst

Social Cues for ASD

McKenna Bunting and Bridget Pinnata

The effectiveness of the Picture Exchange Communication System (PECS) on students with autism spectrum disorder (ASD).

Emma Carlstrom, Zoe Dickson, Samantha Gagliardi

The Effects of Play Therapy on Children with Autism Spectrum Disorder

Kaitlyn Rainey, Shinesha Crumbley, and Ashley Foster

TEACCH Everyone

Alex Cassidy and Brady Hurlich

Increasing Communication and Socialization Through Music for Children with Autism

Tristin Williamson and Shannon Douglass

The Effects of Video Modeling on Self-Management Skills for Individuals with ASD.

Kedia Swaby, Faith Carneal, Taylor Long

Efficacy of The Zones of Regulation Curriculum When Teaching Students with ASD

Jonathan Spencer and Matthew Gayhart

Let's Script it!!!

