Winter Creative Activities and Research Days

Dec. 4, 2019
Noon to 7 p.m.
Kyle Hall 340
Winter CARD Coordinators in OURS

Joe Wirgau, Director
Maggie Pate, Associate Director
Alyssa Thompson, Administrative Assistant
Zoe Millard, Graduate Assistant
Sam Doncaster, Executive Student Assistant
Jillian Rauch, Executive Student Assistant

The following individuals and officers are acknowledged for their contributions:

Jeff Aspelmeier, Chair of Psychology
David Horton, Assistant to the Dean of Artis College
Jonathan Mayer, Assistant Manager Printing Services
Hannah Moses, Media Designer University Relations
Meghan Spraker, Dir Digital Communications, University Relations
Jeff Wilmer, Professor of Psychology
Josh Wimmer, Graphic Production Tech Printing Services

Welcome:

It is my pleasure to welcome you to the Inaugural Winter Creative Activities and Research Days at Radford University. Building on the tradition of successful events such as the Student Engagement Forum in the spring and seven years of the Psychology and Gender Research Symposium, Winter CARD represents multiple events for students to disseminate their knowledge during the last week of the Fall semester. In total across three days and four buildings over 500 students will be presenting their original work. As much as the students working on these projects are changed from the experiences, their numbers and the need to create events to present their hard won accomplishments represents the transformative changes that continue at Radford University. We believe that these events truly reflect “Embracing the Tradition and Envisioning the Future” and couldn’t agree more with President Hemphill that “there is no limit to what the future holds and what we can achieve together as one Radford family.” –With Highlander Pride, Dr. Joe Wirgau, Director of the Office of Undergraduate Research & Scholarship
Winter CARD Events

December 3rd Psychology and Gender Research Symposium
3:30 – 7:00 pm in Heth 014 & 022

December 4th Kyle Hall Schedule of Events:

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<td>I</td>
<td>12:00 – 12:50 pm</td>
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<td>VI</td>
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December 4th in Porterfield 205:

African Art Exhibit Mentored by Dr. Roann Barris, Professor of Art History

Haitian Vodou Drapo Flag - Damballah
Presenters: Savannah Penven

Les Vrai Femmes D'Algers: Baya Mahieddine and her Works
Presenters: Sidney Ripley

Haitian Altar in Reverence to Ayida Weddo and Damballah
Presenters: McKenna Bevins

Basotho Painted Houses
Presenters: Lanie Boyd

Haitian sequence bottle
Presenters: Robert Milby

Haitian Vodou Bottle
Presenters: Hannah ODell

December 5th Artis College Showcase
3:00 – 6:00 pm Various Locations in the Center for the Sciences
Dirty Mouth: Assaying the Effects of Differential Environments on Orally Collected Bacteria
Presenters: Jordanne Rolan, Lucy Smith, Jordan Reddy, Bridget Ward
Faculty Mentor: Jason Davis Biology

Toothbrush Bacteria
Presenters: Courtney Streeby, Makenzie Lewis, Maddie Yancey, Gage Rippel
Faculty Mentor: Jason Davis Biology

The Effects of Salt, Sugar, and Heat on Bacterial Growth
Presenters: Kate Sundie, Trinity Haynes, Destiny Austin, Kirbie Conner
Faculty Mentor: Jason Davis Biology

Bacterial Growth
Presenters: Alayna Johnson, Kate Mullins, Bobbi Ferguson, Wakilah Turner
Faculty Mentor: Jason Davis Biology

What Is Living On Your Computer
Presenters: Emily Cha, Hannah Hylton, Grace Brady, Sarah Lambert
Faculty Mentor: Jason Davis Biology

A Tree-Ring Analysis of *Pseudotsuga menziesii* Growing in Wyoming
Presenters: Olivia Ligon
Faculty Mentor: Stockton Maxwell Geospatial Science

Racial Differences and the Causes of Wrongful Convictions
Presenters: Valente Perez III, Olive Wimmer, Quentasia Johnson, Andrew Dillon
Faculty Mentor: Margaret Pate Criminal Justice

How Campus Size Affects the Perception of Policing
Presenters: Austin White, Hunter Hill, Edward Weaver
Faculty Mentor: Margaret Pate Criminal Justice

Social Attitudes Towards Mass Shootings
Presenters: Megan Wright, Phoebe Markwood, Eric Dorsey
Faculty Mentor: Margaret Pate Criminal Justice
Influence Of Overcrowding And Safety Of Prisoners/ Guards
Presenters: Ian O’Connor Mack Delgadillo Zhabre Price
Faculty Mentor: Margaret Pate Criminal Justice

The Effects Of pH On Probiotic Bacteria
Presenters: Janee Knight Kayla Snyder Autumn Brown
Faculty Mentor: Tara Pelletier Biology

Liquid Probiotic vs. Capsule Probiotic
Presenters: Emma Roberts Alexis Williamson Jaelyn Harris
Faculty Mentor: Tara Pelletier Biology

Probiotics: CFUs in Capsules vs. Liquids
Presenters: Austin Schneider Alan Le Mariana Herrera
Faculty Mentor: Tara Pelletier Biology

A Gutty Feeling
Presenters: Quintin Goodman Naudia Gunn Sierra McShaw
Faculty Mentor: Tara Pelletier Biology

Finding a Dilution Solution
Presenters: Kameron Hughes Kyeem Dicks
Faculty Mentor: Tara Pelletier Biology

Who Did It Better? Kombucha vs. Capsule
Presenters: Nora Okes Madisyn McCoole
Faculty Mentor: Tara Pelletier Biology

The Effect Of A High Acidity Environment On The Growth Of A Bacteria Culture
Presenters: Rachel Pham Meghan McNulty
Faculty Mentor: Tara Pelletier Biology

Oxyclean Presumptive Blood Test
Presenters: Eric Vaughn Benjamin Manente Stephanie Vigil
Kayla Condron Dena Belanger
Faculty Mentor: Eric Snow Criminal Justice

Women’s Equality in Developing Nations
Presenters: Emily Jenkins
Faculty Mentor: Stephanie Bradley Sociology

Leadership of Followership? Which One Does Team Sport Teach?
Presenters: Jared Layman Khiana Johnson
Faculty Mentor: Kevin Ayers Health and Human Performance
Should College Athletes be Compensated? California and its Impact on College Athletics
Presenters: Connor Buswell Alyssa Snow
Faculty Mentor: Kevin Ayers Health and Human Performance

The Three Signs of a Miserable Job: What They are and How Managers Can Avoid Them
Presenters: Tyler Malamisura
Faculty Mentor: Kevin Ayers Health and Human Performance

Transformational vs. Transactional Leadership Styles for College Coaches
Presenters: Will Holladay Kyle Altizer
Faculty Mentor: Kevin Ayers Health and Human Performance
Bioassessment of Radford's Stormwater Remediation Wetland
Presenters: Biol 131 students
Faculty Mentor: Ariel Firebaum Biology

Cultural Genocide of the Uyghur Minority in Xinjiang, China
Presenters: Jonathan Nester
Faculty Mentor: Iuliia Hoban Political Science

China's Social Credit System as a Violation of Human Rights
Presenters: Haley Nunez
Faculty Mentor: Iuliia Hoban Political Science

Searching Darkness: A Theoretical Approach to International Collaboration
Presenters: Sebrena Williamson
Faculty Mentor: Ji-Eun Lee Dance

Good Bacteria
Presenters: Grace Akoto Anisa Hughes Kendra Sloane
Faculty Mentor: Tara Pelletier Biology

Computational Assessment of the Ecological Niche of Ursus maritimus Using Future Climate Models
Presenters: Sir Nottingham
Faculty Mentor: Tara Pelletier Biology

My Favorite Protein Project
Presenters: Biol 231 students
Faculty Mentor: Tara Phelps-Durr Biology

West Nile Virus
Presenters: Ethan Peggins Steven Lane Alan Cuoto
Faculty Mentor: Kathleen Poole Health and Human Performance

Nipah Virus
Presenters: Brooke Johnson Lena Gordon Ashawntia Richardson
Faculty Mentor: Kathleen Poole Health and Human Performance

What is Power When it Comes to Leadership and Motivation of Workers?
Presenters: Caleb Brown
Faculty Mentor: Kevin Ayers Health and Human Performance

Indoor Professional Volleyball: Opinions for Americans to Play Overseas
Presenters: Morgan Goodman
Faculty Mentor: Kevin Ayers Health and Human Performance
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<thead>
<tr>
<th>Disease</th>
<th>Presenters</th>
<th>Faculty Mentor</th>
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<tr>
<td>Ebola</td>
<td>Colton Miles, John Zilk, Austin Wolfe</td>
<td>Kathleen Poole, Health and Human Performance</td>
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<tr>
<td>Lyme Disease</td>
<td>Mary Beth Saunders, Michell Hernandez-Garcia, Elise Jarema</td>
<td>Kathleen Poole, Health and Human Performance</td>
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<tr>
<td>Cholera</td>
<td>Dilara Beg, Donovan Pittman, Jordan Spence</td>
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<td>Dengue Fever</td>
<td>Bobbi Black, Cole Houchins, Kelly Bryant</td>
<td>Kathleen Poole, Health and Human Performance</td>
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<td>Chagas</td>
<td>Patricia Schaal, Brett Roneyces, Sandra Brackett</td>
<td>Kathleen Poole, Health and Human Performance</td>
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<td>Zika</td>
<td>Musavyimana Marietta, Jamison Cook, Trya Sharpe</td>
<td>Kathleen Poole, Health and Human Performance</td>
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<tr>
<td>Plague</td>
<td>Kayla Bishop, Brennen Richardson</td>
<td>Kathleen Poole, Health and Human Performance</td>
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Selective Growth Of Lactobacillus Present In Probiotic Supplements
Presenters: Katie Price  Taylor Smoot  Taquon Thaniel
Tehya Fuqua  Thomas Lyttle
Faculty Mentor: Sarah Flotz  Biology

Probiotics in the Digestive System
Presenter: Emma Bradley
Faculty Mentor: Sarah Foltz  Biology

Probiotics Lab
Presenters: Virginia Ozolins  Georgia Hardy  Alexis Ritter
Jadon Williams  Jared Miller
Faculty Mentor: Sarah Foltz

The Effect of Sugar Levels on Probiotic Colonies
Presenters: Alison Gebhard  Marion Nanney  Allison Lowie
Kaitlyn Einreihof
Faculty Mentor: Sarah Foltz  Biology

Differences in Leaf Stomata Density in Campus Trees Native to Colder and Warmer Climates
Presenters: Bryan White  Lauren Rodgers  Victoria Raulerson
Amanda Bowman  John Rasnick
Faculty Mentor: Christine Small  Biology

Differences in Leaf Stomata Density in Radford University Campus Trees Based on Region of Origin
Presenters: Gigi Burns  Arvin Nguyen  Affiba Beke
Ashanti Turner
Faculty Mentor: Christine Small  Biology

Influence of Leaf Size on Stomata Density in Radford University Campus Trees
Presenters: Abi Naughton  Lyndsie Cruz  Sean Villedrouin
Isaiah Copeland
Faculty Mentor: Christine Small  Biology

Differences in Leaf Stomata Density between Evergreen and Deciduous Trees on the Radford University Campus
Presenters: Chasity Tompkins  Alexa Price  Loren Albergottie
Mikayla Jones
Faculty Mentor: Christine Small  Biology
Differences in Leaf Stomata Density in Campus Trees Native to Dry and Humid Climates
Presenters: Parker Edmonds Will Cecil Mia Bialobreski Olivia Ramsey
Faculty Mentor: Christine Small Biology

Relationship of Leaf Size to Stomata Density in Radford University Campus Trees
Presenters: Monica Genova Nii Abraham Olivia Tyson-Price Wellington Dressler
Faculty Mentor: Christine Small Biology

Observed Stigma Around Speech and Intelligence
Presenters: Kati Poole Anna Wheeles Audra Jessee
Faculty Mentor: Joe Wirgau OURS

Effects of a Students' Sense of Belonging
Presenters: Noa Powell Elizabeth Dudley Evan Wood
Faculty Mentor: Joe Wirgau OURS

Cognitive Benefits of Early Childhood Music Education
Presenters: Grant McDonel Jared Williams Nashaly Sasso
Faculty Mentor: Joe Wirgau OURS

The Detrimental Effects of Shark Finning
Presenters: Elise Simmons Sierra Felty William Carpender
Faculty Mentor: Joe Wirgau OURS

Calculating Time of Death Using Forensic Entomology
Presenters: Kaitlyn Sisk Gracie Osborne
Faculty Mentor: Joe Wirgau OURS

Exo Suit Technology: Out of the Movies and into Society
Presenters: Coleen Maloney Spencer Phillips
Faculty Mentor: Joe Wirgau OURS

Not Just Coping, Thriving!
Presenters: Markel Wiggins Brooke Baumgarten Andrew Hill
Faculty Mentor: Joe Wirgau OURS

The Underlying Value Of Experiential Events
Presenters: Benjamin Owen
Faculty Mentor: Anita Zatori Recreation, Parks and Tourism
Festival Experience Design: The Case of the Radford Highlanders Festival
Presenters: Emily Suiter
Faculty Mentor: Anita Zatori
Recreation, Parks and Tourism

Bacteria And Stomach Acid
Presenters: Torri Queen Daja Haynes Wayne Henry
Quest Curtis Phoenix Norris
Faculty Mentor: XX XX XX
Teacher Work Sample
Presenters: DaVonte Christmas
Faculty Mentor: Stephen Shelton
Health and Human Performance

Teacher Work Sample
Presenters: Courtney Coster
Faculty Mentor: Stephen Shelton
Health and Human Performance

Teacher Work Sample
Presenters: William Noe
Faculty Mentor: Steve Shelton
Health and Human Performance

Vaughan-Bassett Furniture Company: Galax, Virginia's Industrial Savior
Presenters: Danielle Walls
Faculty Mentor: Mary Ferrari
History

Effects of pH on Plant Density and Insect Abundance
Presenters: Noah Buchan
Angie Holmes
Katie Allen
Sara North
Faculty Mentor: Jamie Lau
Biology

Determining Whether Proximity to Roads Affects Pollutant Concentrations, Moss Volume, and Macro-Invertebrate Abundance in Wildwood Park
Presenters: April Hiett
Miranda Flack
Logan Platt
Tony Torres
Faculty Mentor: Jamie Lau
Biology

Quiver Surf and Skateboards
Presenters: Colby Higgerson
Faculty Mentors: Bruce Parsons & Holly Cline
Interior Design and Fashion

The Origins Of Juvenile Delinquency: Perceptions From The Public
Presenters: Tawanna Hodge
Sydney Venable
Adriene De Lilly
Faculty Mentor: Margaret Pate
Criminal Justice

The Effect Of Alcohol On Blood Stains
Presenters: Stephan Ignjatic
Ian O’Connor
Devin Johnston
Austin White
Anton Jones
Faculty Mentor: Eric Snow
Criminal Justice

The Analysis of Hydrogen Peroxide on a Presumptive Blood Test
Presenters: Sarai Maguire-Hernandez
Rayshell Torres-Santana
Taylor Sharpe
Destiny Freeman
Lyric Woodward
Elise Beahm
Faculty Mentor: Eric Snow
Criminal Justice
How to Get Away with Vinegar
Presenters: Delaney Sutherland
           Eric VanBurger
Faculty Mentor: Eric Snow
Kimberly Vallejos
Bria Headen
Lance Singleton
Criminal Justice

Coke? Crime Scene Cleaner?
Presenters: Anna Mohrmann
           Hunter Hill
Faculty Mentor: Eric Snow
Lauren Folker
Savannah Widrig
Taylor Roberts
Destinee Twitty
Criminal Justice

Ammonia Synthetic Blood Test
Presenters: Alexis Harris
           Jamaica Woodford
Faculty Mentor: Eric Snow
Falyn Taylor
Myesha Wilson
Joseph Baylor
Keira Jones
Criminal Justice

B.L.E.A.C.H.
Presenters: Jacob Filbert
           Jordan Dameron
Faculty Mentor: Eric Snow
Luke Blackiston
Janet Ayiku
Carrie Buchanan
Zoe Moffett
Criminal Justice

Carbonation to Incarceration?
Presenters: Hannah Stewart
           Kimber Duke
Faculty Mentor: Eric Snow
Emily Shelton
Richard Adams
Sarah Steffey
Criminal Justice
pH and Nitrogen Content of Connelly’s Run
Presenters: Dorian Custer
Faculty Mentor: Kristina Stefaniak Chemistry

A Literature Review of Laccase: a Multi-Copper Oxidase Used to Reduce Water Pollution
Presenters: April Hiett
Faculty Mentor: Sarah Kennedy Chemistry

Scavengers of Bird Carcasses and their Effects on Bird-Window Collision Research
Presenters: Bradley Jones Lauren Burroughs
Faculty Mentor: Karen Powers Biology

Digitizing Family History
Presenters: Chase Pilcher Angie Juodagalvis
Faculty Mentor: Sharon Roger Hepburn History

Determination of Chloride Ion Concentration and Water Hardness in Connelly's Run
Presenters: William Nape Darin Rose
Faculty Mentor: Kristina Stefaniak Chemistry

Determining Trace Metals and Chloride Concentrations in Soil
Presenters: Branham James Joe Peton
Faculty Mentor: Kristina Stefaniak Chemistry

Quantitative Analysis of Iron and Chloride in Soil Samples From Connelly's Run
Presenters: Patrick Cahoon Julian Wolz
Faculty Mentor: Kristina Stefaniak Chemistry

Quantification of Iron and Trace Metals in Connelly’s Run River Water
Presenters: Joseph Ratliff Kori Brown
Faculty Mentor: Kristina Stefaniak Chemistry

Determining Water Chemistry of Water Samples from Connelly's Run
Presenters: Haley Pflanzer
Faculty Mentor: Kristina Stefaniak Chemistry

Relating the Garlic Mustard (Alliaria petiolate) Abundance to the Native Plants Abundance and Soil pH
Presenters: Brian Ditch Amanda Whitlock Madison Paterniti
            Angie Leon
Faculty Mentor: Jaime Lau Biology
**Effects of Time of Day on Bird-Window Collisions at Radford University: Focusing on Hardest-Hit Buildings**

Presenters: Claudia Paniagua-Ugarte, Miranda Flack, Taylor Brown  
Faculty Mentor: Karen Powers, Biology

**The Effect of Iron and Chloride Concentration in Soil**

Presenters: Jonathan Gibson-Cromer, Kat Schoettinger  
Faculty Mentor: Kristina Stefaniak, Chemistry

**Quantifying Observer Variability In Bird-window Collision Carcass Detection Using Bird Decoys**

Presenters: Jonathan Gibson-Cromer  
Faculty Mentor: Karen Powers, Biology

**Starry Night Recreation**

Presenters: Jasmine Dudding  
Faculty Mentor: Roann Barris, Art

**Dorris Lee, Thanksgiving**

Presenters: Bryan Jewell  
Faculty Mentor: Roann Barris, Art

**Portraits**

Presenters: Tannis McKay  
Faculty Mentor: Roann Barris, Art

**Jasper John's Numbers**

Presenters: Joel Vasquez  
Faculty Mentor: Roann Barris, Art
The Effect Of CaCO₃ And Plant Density On Deer Population Density At Different Locations In Wildwood Park
Presenters: Raegan Forbes Dyna Fitzsimmons Hunter Lauver
Jayla Smith
Faculty Mentor: Jaime Lau Biology

Effects of Water Pollution on Mammals and Aquatic Insects Near Connelly's Run in Wildwood Park, Radford Virginia
Presenters: Sierra Bragg Lauren Burroughs Miranda Dimas
Logan Van Meter
Faculty Mentor: Jamie Lau Biology

The Effects of pH Levels on the Plant Density and Insect Species Richness at Wildwood Park
Presenters: Layne Sigmon Selena Angel Stephanie O. Aning
Nicholas Murff
Faculty Mentor: Jamie Lau Biology

Race, Memory, and Eyewitness Testimony
Presenters: Rachel Ettleman Laneeka Banks Katlyn Girolami
Destinee Twitty
Faculty Mentor: Margaret Pate Criminal Justice

Social Effects Of Policing On Campus
Presenters: DawnMarie Connolly Devin Johnston Griffin Boaz
Tanner Poitras
Faculty Mentor: Margret Pate

Drug Use at Radford University: Does it Cause Risky Behavior?
Presenters: Lyric Woodward Yajaira Flores Chloe Deel
Taylor Roberts
Faculty Mentor: Margaret Pate Criminal Justice

Radford University Students' Attitudes Towards Domestic Violence
Presenters: Katie Horton Paige Kranyak Caleb Howard
Faculty Mentor: Margaret Pate Criminal Justice

Demographical Influence on the Perception of Police Misconduct and Body Cameras
Presenters: Samantha Fernandez Lance Singleton Eric VanBurger
Faculty Mentor: Margaret Pate Criminal Justice

Mass Media Consumption And The Perception Of Violent Crime Rates
Presenters: Brianne Pearson Vicky Hanger Madison Trail
Faculty Mentor: Margaret Pate Criminal Justice
Gender Differences in Death Penalty Support
Presenters: Kathleen Stiltner Allen Minnick Kaitlyn Copenhaver Dustin Sage
Faculty Mentor: Maggie Pate Criminal Justice

Trace Metal Levels Describing Connelly’s Run Soil in Wildwood Park, Radford, Va
Presenters: Ahyana Calloway Austin Dean Charles Dotson
Faculty Mentor: Kristina Stefaniak Chemistry

Analysis of Trace Metals, pH, Nitrate and Ammonium in Soil From Connelly's Run
Presenters: Alexandra Mekus Deanna Perales
Faculty Mentor: Kristina Stefaniak Chemistry

Chemical Analysis of Iron and Calcium Carbonate in Connelly’s Run
Presenters: Samantha Powell Jake Morris
Faculty Mentor: Kristina Stefaniak Chemistry

Analysis of pH and the Concentration of Chlorides, Ammonium, and Nitrates in Connelly’s Run
Presenters: Rayshell Torres-Santana Sirmion Jenerette
Faculty Mentor: Kristina Stefaniak Chemistry

Analysis of Soil Chemistry of Connelly’s Run in Wildwood Park
Presenters: Sydney Fisher
Faculty Mentor: Kristina Stefaniak Chemistry

Examining The Alkalinity, pH, and Ammonium and Nitrate Concentrations in Soil Surrounding Connley’s Run in Radford, Virginia
Presenters: Mary Elizabeth Demmin Mary-Elizabeth Luttrell
Faculty Mentor: Kristina Stefaniak Chemistry

Comparing the Golden Crownbeard Density and Soil Moisture Content Between the East- and West-facing Slopes of Wildwood Park
Presenters: Chantel Cook Keasia Clark Olivia Ramsey Mark Brianna Mathis
Faculty Mentor: Jamie Lau Biology

Comparing the Noise Levels in Four Wildwood Park Locations
Presenters: Justin McLaughlin Camryn Willford Alayna Carter
Faculty Mentor: Jamie Lau Biology
Comparing the Crayfish Abundance Between Connelly’s Run and the New River
Presenters: Drew Reavis Gabriel Hessler Laken Waugh
Faculty Mentor: Jamie Lau Biology

Relating Air Temperature and Light Levels to Soil Surface and Sub-surface Temperatures in Wildwood Park
Presenters: Tyra Jackson Ashanti Turner
Faculty Mentor: Jamie Lau Biology

The Impact of Iron and Calcium Carbonate on the Soil Chemistry Along Connelly's Run
Presenters: Jordan Dameron
Faculty Mentor: Kristina Stefaniak Chemistry