

SECOND ANNUAL

Winter

Creative Activities

AND Research Days

NOVEMBER 10-13

RADFORD UNIVERSITY

Undergraduate Research and Scholarship

Welcome: It is my pleasure to welcome you to the 2nd Winter Creative Arts & Research Days at Radford University and for the first time in a virtual environment. Even though it seems like everything is different in 2020, what has not changed is the fact that hundreds of Radford University students have been working closely with faculty mentors to create new knowledge. I could not be prouder of our students and faculty. I hope you enjoy hearing about their accomplishments. The projects are on asynchronous display all week through Portfolium and D2L, you can also interact with presenters live through the Zoom links on the next page. This week is a continual demonstration of what it means to be a Highlander as these students and faculty mentors have been responsive to community and national needs, by being resilient in the face of a pandemic, and ultimately created real knowledge that positively impacts society.

-With Highlander Pride, Dr. Joe Wirgau, Director of the Office of Undergraduate Research & Scholarship

Winter CARD Coordinators in OURS

Joe Wirgau, Director
Maggie Pate, Associate Director
Amanda Melvin, Administrative Assistant
Madison Ferst, Graduate Assistant
Brooklynn Ham, Graduate Assistant
Sierra Felty, Executive Student Assistant
Liv Morka, Executive Student Assistant
Jeannie Tene, Executive Student Assistant

The Following Individuals are Acknowledged for Their Contributions:

Jeff Aspelmeier, Chair of Psychology
Matt Brotherton, Graduate Assistant
Ann Elliot, Director of the Center for Gender Studies
Nicole Iannone, Assistant Professor of Psychology
Jonathan Mayer, Assistant Manager Printing Services
Foster Sheppard, Graphic Design Manager, University Relations
Meghan Spraker, Dir. Digital Communications, University Relations
Ellen Taylor, Asst. Director of Programming, Center for Career & Talent Development
Josh Wimmer, Graphic Production Tech Printing Services

Schedule at a Glance:

Password to all Winter CARD Zoom links is: WinterCARD

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Rise Above: Breathe, Speak, Stand Tall 7:30 pm **Ticket Information**

Tuesday, November 10th:

Criminal Justice Symposium I 12:30-1:45 pm **Zoom Link**

Psychology & Gender Research Symposium 5:00-7:00 pm

D2L "Psychology and Gender Research Symposium" Self-enrollment Instructions

November 11 th -15 th :		
Almost, Maine	7:30 pm	<u>Ticket Information</u>
Wednesday, November 11 th :		
Biology Symposium I	11:00-11:50 am	Zoom Link
Interdisciplinary Symposium I	11:00-11:50 am	Zoom Link
Interdisciplinary Symposium II	12:00-12:50 pm	Zoom Link
Biology Symposium II	2:00-2:50 pm	Zoom Link
Interdisciplinary Symposium III	3:00-3:50 pm	Zoom Link
Accelerated Research Opportunities Symposium I	3:00-3:50 pm	Zoom Link
Accelerated Research Opportunities Symposium II	4:00-4:50 pm	Zoom Link
Biology Symposium III	5:00-5:50 pm	Zoom Link
Thursday, November 12 th :		
Dialects and Anthropological Sciences	11:00 am-12:15 pm	Zoom Link
Interdisciplinary Symposium IV	11:00 am-12:15 pm	Zoom Link
Criminal Justice Symposium II	11:00 am-12:15 pm	Zoom Link
Criminal Justice Symnosium III	12·30-1·45 nm	Zoom Link

Dialects and Anthropological Sciences	11:00 am-12:15 pm	Zoom Link
Interdisciplinary Symposium IV	11:00 am-12:15 pm	Zoom Link
Criminal Justice Symposium II	11:00 am-12:15 pm	Zoom Link
Criminal Justice Symposium III	12:30-1:45 pm	Zoom Link
Biology Symposium IV	1:00-1:50 pm	Zoom Link
Biology Symposium V	2:00-3:15 pm	Zoom Link
Biology Symposium VI	4:00-4:50 pm	Zoom Link
Lightening Research Competition	6:00-7:30 pm	Zoom Link

Friday, November 13th:

Citizen-Leader Showcase 3:00-4:15 pm **Zoom Link**

Asynchronous

Criminal Justice Capstones All week Portfolium Link

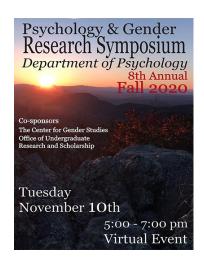
Winter CARD Events

8th Annual Psychology & Gender Research Symposium

Tuesday, November 10th from 5:00 pm – 7:00 pm

Psychology & Gender Research Symposium Fall 2020 Program

For information on how to participate, please visit the Psychology and Gender Research Symposium webpage.



College of Visual and Performance Art Presents From The Department of Theatre and Cinema

Almost, Maine by John Cariani and Directed by Robyn Berg

Pridemore Playhouse: Nov. 11, 12, 13 and 14 at 7:30 p.m. and Nov. 15 at 2:00 p.m. Ticket Information

The fictional town of Almost, Maine comes to life on a clear, cold night through a series of vignettes inspired by the universal emotion of love. The residents fall in and out (and even up and down!) of love in hilarious, touching and slightly surreal ways. Normally very grounded, these characters are temporarily excited and experience magical moments that seem to coincide with the northern lights that fill the sky above them. Join us as we explore this simple town as it deals with the complicated issue of love.



Rise Above: Breathe, Speak, Stand Tall A premiere dance work created by the Department of Dance New Student Seminar Course Monday November 9th, 2020 7:30pm Virtual Performance For Tickets: | Department of Dance | Dep

From The Department of Dance

First-Year Seminar Showcase, "Rise Above: Breathe, Speak, Stand Tall." Directed by Amy VanKirk

The showcase will be a virtual Zoom live-streaming of a pre-recorded performance on Monday, November 9 at 7:30PM EST.

Ticket Information

All live session presentations are also available asynchronously throughout the week. You can find the links to all the presentations on the following padlets:

Accelerated Research Opportunities Symposiums
Asynchronous Criminal Justice Capstones
Biology Symposiums
Criminal Justice Symposiums
Interdisiplinary Symposiums

Live Question and Answer Sessions

Tuesday, November 10th

Criminal Justice Symposium I: 12:30 pm - 1:45 pm
Zoom Link: https://radford.zoom.us/j/96365618256 Password: WinterCARD

Individuals Demographic Characteristics and How They Perceive Serial Killers

Student Presenter(s): Carter Noell and Skylar Rife

Mentor(s): Dr. Margaret Pate

Likelihood to Join a Cult

Student Presenter(s): Angie Giuffre, Brianna Baltazar and Jordan Burney

Mentor(s): Dr. Margaret Pate

The Effects of Contraband on Safety in Prisons and Correctional Facilities

Student Presenter(s): Robert Dondero, Jeffrey Jobe, Ty Wines and Justin Davis

Mentor(s): Dr. Margaret Pate

Born v. Made Criminals

Student Presenter(s): Stephanie Vigil, Justina Wood and Mya Sloane

Mentor(s): Dr. Margaret Pate

Wednesday, November 11th

Biology Symposium I: 11:00 am – 11:50 am

Zoom Link: https://radford.zoom.us/j/91466139070 Password: WinterCARD

Human Interaction Effects on Squirrels of Two Different Geographic Locations

Student Presenter(s): Connor Grazioso, Janita Lyde, Ashanti White and Zach Christman

Mentor(s): Dr. Jamie Lau

Impact of Human Foot Trafficking on Crab Apple Seed Size

Student Presenter(s): Jordan Reddy, Bianca Plowman, Faith Bungarner and Elaine Ergenbright

Mentor(s): Dr. Jamie Lau

Observing Squirrel Behavior on and off Radford University's Campus

Student Presenter(s): Acalia Carter-Martin, Cassandra Hash, Brooklyn Burkett and Mariah Hicks

Mentor(s): Dr. Jamie Lau

The Effect of Soil Conditions on Ant Activity in the Mulch on Radford University's Campus

Student Presenter(s): Sierra Stephens, Bryan Caswell, Keyvanta Watson and Isaiah Beamon

Mentor(s): Dr. Jamie Lau

Interdisciplinary Symposium I: 11:00 am - 11:50 am

Zoom Link: https://radford.zoom.us/j/93994785771 Password: WinterCARD

Human Trafficking and Recruiter Relationships

Student Presenter(s): Dana Ours

Mentor(s): Dr. Margaret Pate

Public Perception on Mental Health and Mental Health Courts

Student Presenter(s): Melissa Wirchansky Mentor(s): Dr. Margaret Pate

Music Therapy Protocol for Children with Speech-Language Disorders

Student Presenter(s): Kirbie Conner
Mentor(s): Dr. Patricia Winter

Interdisciplinary Symposium II: 12:00 pm – 12:50 pm

Zoom Link: https://radford.zoom.us/j/92668882672 Password: WinterCARD

Reality and Perception of Financial Wellbeing

Student Presenter(s): Brian Wynn

Mentor(s): Dr. Stephanie Bradley

Impact Assessment: Mountain Valley Pipeline Effects on Nearby Streams

Student Presenter(s): Jaxon Emery

Mentor(s): Drs. Charles Manyara and Gregory Ioffe

Content Analysis of Nonverbal Communication found in Professional Wrestling

Student Presenter(s): Reginald Thomas II
Mentor(s): Dr. Leigh Kelley

Biology Symposium II: 2:00 pm – 2:50 pm

Zoom Link: https://radford.zoom.us/j/95000527083 Password: WinterCARD

Chemical, Biological and Physical Assessment of Connelly's Run Upstream of the Landfill

Student Presenter(s): Kristin Ransome, Chasity Tompkins, Nicolas Loudermilk, Reneisha Leeper

and Samantha Houck

Mentor(s): Dr. Jamie Lau

Comparing the Stream Quality between Connelly's Run and the Tributary to Mill's Creek

Student Presenter(s): Lauren Rodgers and Addie Weddle

Mentor(s): Dr. Jamie Lau

Determining Stream Health of Connelly's Run near The Bridge at Wildwood Park

Student Presenter(s): Madison Paterniti, Tom Carty and Donya Mohamed

Mentor(s): Dr. Jamie Lau

Accelerated Research Opportunities Symposium I: 3:00 pm – 3:50pm

Zoom Link: https://radford.zoom.us/j/96811558407 Password: WinterCARD

Mental Confusion: The Anatomical and Physiological Diagnosis of Behavioral Disorders and their

Effective Treatments

Student Presenter(s): Ashley Nesmith, Riley Petroski and Shane McClafferty

Mentor(s): Dr. Joe Wirgau

Getting What You Want: The Effectiveness of Non-Violent Protests

Student Presenter(s): Maia Grove, Kiersten Dodson and Kaleb Martin

Mentor(s): Dr. Joe Wirgau

Your House Is Watching You: IOT device security

Student Presenter(s): Sam Williams and Camryn Decotis

Mentor(s): Dr. Joe Wirgau

Interdisciplinary Symposium III: 3:00 pm – 3:50 pm

Zoom Link: https://radford.zoom.us/j/92390048278 Password: WinterCARD

Stream Health Assessment of Connelly's Run in Wildwood Park, Radford VA

Student Presenter(s): Noah Buchan, Kirsten Grzybowski and Kristen Pitchke

Mentor(s): Dr. Jamie Lau

Three Factors Influencing the Stream Quality of Plum Creek in Radford, VA

Student Presenter(s): Dyna Fitzsimmons, Logan Van Meter, and Logan Platt

Mentor(s): Dr. Jamie Lau

Mountain Valley Pipeline's Impact on the Water Chemistry of Surrounding Streams

Student Presenter(s): Makenzie Bennington
Mentor(s): Dr. Kristina Stefaniak

Accelerated Research Opportunities Symposium II: 4:00 pm – 4:40pm

Zoom Link: https://radford.zoom.us/j/96811558407 Password: WinterCARD

It Takes a Village: The Lasting Effects of Neglect and Abuse in Childhood

Student Presenter(s): Sara Quintin, Jasmine Heater and Laura Ferko

Mentor(s): Dr. Joe Wirgau

Let it Bee: Conservation of Local, Wild Bees

Student Presenter(s): Skylar Roberson, Andrew Abernathy, Rhianna Pannette, Tierra

Stubbs and William Carpenter

Mentor(s): Dr. Joe Wirgau

Biology Symposium III: 5:00 pm – 5:50 pm

Zoom Link: https://radford.zoom.us/j/92824579698 Password: WinterCARD

Assessing Crab Creek and the Effects of the Railroad

Student Presenter(s): McKenzie Harpine, Rebecca High and Patrick Barton

Mentor(s): Dr. Jamie Lau

Assessment of Nosema spp. parasitism in bumblebees of Roanoke and New River Valley

Student Presenter(s): Binuk Samarasinghe Mentor(s): Dr. Chett Bhatta

Thursday, November 12th

Interdisciplinary Symposium IV: 11:00 am – 12:15 pm

Zoom Link: https://radford.zoom.us/j/97484565683 Password: WinterCARD

Diversity, Structure, and Ecological Benefits of Tree Species on Radford University Main Campus

Student Presenter(s): Tom Carty, Wyatt Erzen, Emma Labarr, Donya Mohamed and Dennis Utt

Mentor(s): Dr. Christine Small

Comparing pH and Crayfish Abundance between Two Sites near Radford University

Student Presenter(s): Gabriella Richards, Christopher Felty, Elizabeth Lee and Kiersten Smith

Mentor(s): Dr. Jamie Lau

Statistical Analysis on the Effects of Timeouts in Volleyball

Student Presenter(s): Jordan Coomes

Mentor(s): Drs. Caleb Adams and Shamim Sarker

Integrated Assessment of Connelly's Run Downstream of the Radford City Landfill

Student Presenter(s): Leah Bailey, Ben Nicely and Hannah Roberts

Mentor(s): Dr. Jamie Lau

Susceptibility and Resistance of Forests to Invasive Plants in Southwest Virginia

Student Presenter(s): Leah Bailey, Monai Allen, Abbey Ouellette, Rebecca Salen and Haley

Howerin

Mentor(s): Dr. Christine Small

Criminal Justice Symposium II: 11:00 am - 12:15 pm

Zoom Link: https://radford.zoom.us/j/94143666955 Password: WinterCARD

Perceptions of COVID-19

Student Presenter(s): Megan Filardi, Tatiyanna Harper and Trinity Harris

Mentor(s): Dr. Margaret Pate

Self-Control vs. Social Bond Theory

Student Presenter(s): Courtney Oberer, Elise Beahm and Ricky Lockhart

Mentor(s): Dr. Margaret Pate

Mass Incarceration in The United States

Student Presenter(s): Elizabeth Barrie, John Davis and RaChaise Gilbert

Mentor(s): Dr. Margaret Pate

Police Brutality: Does Race Play a Role?

Student Presenter(s): Madelyn Huff, Kailynn Harris, Cal Scheck and Brandon Burchett

Mentor(s): Dr. Margaret Pate

Forensic Investigation Reliability

Student Presenter(s): Emily Shelton, Jared Castro and Rex Diaz

Mentor(s): Dr. Margaret Pate

Dialects and Anthropological Sciences Symposium: 11:00am - 12:00 pm

Zoom Link: https://radford.zoom.us/j/98403919783 Password: WinterCARD

Sociolinguistic Factors of Irish English

Student Presenter(s): Hannah Kocen

Mentor(s): Ms. Megan Elder-Taylor

Mutual Intelligibility of Chinese Dialects

Student Presenter(s): Joshua Barber

Mentor(s): Ms. Megan Elder-Taylor

Sociolinguistic Variables in Appalachian Dialect

Student Presenter(s): Sarah Mullis

Mentor(s): Ms. Megan Elder-Taylor

Sociolinguistics and the American Southern Dialect

Student Presenter(s): Haley Osborne

Mentor(s): Ms. Megan Elder-Taylor

Standard, High, Low? The Influence of Dialects on German Society

Student Presenter(s): Zofia Witkowski

Mentor(s): Ms. Megan Elder-Taylor

The Dominican Republic's Dialect: History and Sociolinguistic

Student Presenter(s): Tana Vance

Mentor(s): Ms. Megan Elder-Taylor

Criminal Justice Symposium III: 12:30 pm - 1:45 pm

Zoom Link: https://radford.zoom.us/j/99815067329 Password: WinterCARD

Mental Health of the Wrongfully Convicted

Student Presenter(s): Victoria Domenech, Joi Taylor and Zoe Moffett

Mentor(s): Dr. Margaret Pate

Crime Analysis and Social Status

Student Presenter(s): Vanessa Garcia, Kasey Tolley and Patrick Dengler

Mentor(s): Dr. Margaret Pate

Forensic Bias in Wrongful Convictions

Student Presenter(s): Abigail Collins, Jessica Hurline, Tiffany Wilson and Olivia Landrum

Mentor(s): Dr. Margaret Pate

Modern Perception of Crime and Punishment

Student Presenter(s): Noah Simmons, Reed Boschen, Andrew Workman and Raymond Radford

Mentor(s): Dr. Margaret Pate

Biology Symposium IV: 1:00 pm – 1:50 pm

Zoom Link: https://radford.zoom.us/j/93346420224 Password: WinterCARD

Dark vs. Light: Effects of Human Activity on Wildlife at Wildwood Park

Student Presenter(s): Hannah Johnson, Sondrea Perry, Kyasya Seams, Sarah Ibrahim

Mentor(s): Dr. Christine Small

Emerald Ash Borer: Comparison of Impacts on Ash Trees in Wildwood Park and Selu Conservancy in

Southwest Virginia

Student Presenter(s): Angie Holmes, Chasity Tompkins, Maame Afrifa, and Sierra Bradley

Mentor(s): Dr. Christine Small

The Effects of Exposure to Ultrasound on the Gut Microbiota

Student Presenter(s): Nicolas Loudermilk Mentor(s): Dr. Joyce Caughron

Biology Symposium V: 2:00 pm – 3:15 pm

Zoom Link: https://radford.zoom.us/j/95195142600 Password: WinterCARD

Assessing Biodiversity in Wildwood Park Using Environmental DNA

Student Presenter(s): Drew Reavis
Mentor(s): Dr. Tara Pelletier

The Effects of Domesticated Animals on Wildlife in Wildwood Park

Student Presenter(s): Maya Banks, Brielle Smith and Courtney Whitt

Mentor(s): Dr. Christine Small

Effects of Human Activity on Diversity and Social Behaviors of Wildlife at Wildwood Park in Radford,

Virginia.

Student Presenter(s): Sierra Felty and Christopher Wozniak

Mentor(s): Dr. Christine Small

Biology Symposium VI: 4:00 pm – 4:50 pm

Zoom Link: https://radford.zoom.us/j/92534232850 Password: WinterCARD

The Effect of Human Activity on Wildlife Activity by Species in South Western VA

Student Presenter(s): Steven Busser, John McKenney, Birch Ambrose and Stephen Repass

Mentor(s): Dr. Christine Small

The Effects of Human Foot Traffic on Nocturnal and Diurnal Species at Wildwood Park in Radford, VA

Student Presenter(s): Jake Brown, Ahna Huff, Jonah Hart and Hannah Stuart

Mentor(s): Dr. Christine Small

Meta-data Analysis of Effectiveness of Bacteriocins on Bacteria

Student Presenter(s): Ashley Duke

Mentor(s): Dr. Joyce Caughron

Lightning Research Talk Competition: 6:00 pm – 7:30 pm

Zoom Link: https://radford.zoom.us/j/92743247815 Password: WinterCARD

A Lightning Talk is a very short presentation of a person's research. The competition is meant to help students develop their ability to concisely communicate their research to a generally educated audience. It will be judged by a panel of Radford University Alumni who were involved in research during their undergraduate program.

This year's competitors, alphabetically, by last name of first author:

Makenzie Bennington under the mentorship of Dr. Kristina R. Stefaniak

Mountain Valley Pipeline's Impact on the Water Chemistry of Surrounding Streams

Hannah Benz under the mentorship of Dr. Thomas Pierce

The Reminiscence Bump Effect in Published Autobiographies

Katie Bishop under the mentorship of Dr. Kristina R. Stefaniak

Counterfeit Cosmetics Compared to Name Brand

Kirbie Conner under the mentorship of Patricia Winter

Music Therapy Protocol for Children with Speech Language Disorders

Jacey Estep and Haley Collins under the mentorship of Dr. Amy Balija

Using iDye Poly to Visualize Microplastics in Aqueous Solutions

Angela Holmes under the mentorship of Dr. Jamie Lau

Up Close and Personal With the Mountain Valley Pipeline

Allison McBride under the mentorship of Dr. Kristina R. Stefaniak

Qualitative study on the Components of E-Liquids using GC-MS

Samuel Williams under the mentorship of Dr. Prem Uppuluri

Paying to Be Spied on: IOT Device Security

Melissa Wirchansky under the mentorship of Dr. Margaret Pate

Public Perception of Mental Health and Mental Health Courts

Alumni Judges:

Ms. Jordan Eagle '16

Pre-doctoral Fellow, Harvard & Smithsonian Center for Astrophysics

Ms. Matti Hamed, '15, M.S. '17

Science Teacher, Providence Middle School Richmond, VA

Mr. Dan Metz '15

Ph.D. Candidate Hechinger Lab Scripps Institution of Oceanography

Mr. Attia Mohamed '19

Oncology Nursing Assistant at Carilion Roanoke Memorial Hospital

Ms. Fiona Scruggs '19

School Programs Coordinator at Jacob's Pillow Dance Festival & Teaching Artist at Berkshire Pulse: A Center for Dance and the Creative Arts

Friday, November 13th

Citizen Leader Showcase: 3:00 pm – 4:15 pm

Zoom Link: https://radford.zoom.us/j/96242586704 Password: WinterCARD

The Citizen Leader Symposium is a forum for students and faculty engaged in civic-minded research and scholarship to add to their academic resumes through professional presentation and showcasing of their work.

Citizen Leader E-Portfolios

Shannon O'Grady

Alyssa Raia

Emily Schira

Douglas Stanfill

Asynchronous Criminal Justice Capstones

DNA Exoneration in the Criminal Justice System

Student Presenter(s): Robert Archibald Mentor(s): Mr. Eric Snow

Deregulating Firearm Silencers

Student Presenter(s): Thomas Armel Mentor(s): Mr. Eric Snow

Drugs in Rural Areas

Student Presenter(s): Brianna Baltazar Mentor(s): Mr. Eric Snow

The Mass Incarceration of African Americans

Student Presenter(s): Laneeka Banks Mentor(s): Mr. Eric Snow

Prison Reform

Student Presenter(s): Caroline Booher Mentor(s): Mr. Eric Snow

Asynchronous Criminal Justice Capstones Cont.

Police Use of Discretion

Student Presenter(s): Ethan D'Arpa Mentor(s): Mr. Eric Snow

Wrongful Convictions: A Look into the Legal System

Student Presenter(s): Shannon Duley Mentor(s): Mr. Eric Snow

Sexual Assaults in the Criminal Justice System

Student Presenter(s): Abigail Gillette Mentor(s): Mr. Eric Snow

Rehabilitative vs Retributive Justice

Student Presenter(s): Jasmine Hankins Mentor(s): Mr. Eric Snow

Police Brutality

Student Presenter(s): Sabriyah Kabir Mentor(s): Mr. Eric Snow

COVID-19 in the Correctional System

Student Presenter(s): Samantha Kozeniesky

Mentor(s): Mr. Eric Snow

Legalization of Marijuana

Student Presenter(s): Garrett Matheny Mentor(s): Mr. Eric Snow

Wrongful Conviction

Student Presenter(s): Cory Ohlin Mentor(s): Mr. Eric Snow

Wrongful Conviction

Student Presenter(s): Dennis Robinson Mentor(s): Mr. Eric Snow

Being "Tough on Crime" Has Cost Americans Greatly: A Policy to Correct Past Failures

Student Presenter(s): Noah Staples Mentor(s): Mr. Eric Snow

Asynchronous Criminal Justice Capstones Cont.

School Shootings

Student Presenter(s): Eric Vaughn
Mentor(s): Mr. Eric Snow

Use of Force: Concerns and Policy

Student Presenter(s): Eric Vaughn
Mentor(s): Mr. Eric Snow

Recidivism: A Look into the Future

Student Presenter(s): Jarred Williams Mentor(s): Mr. Eric Snow

Racism and Police Brutality

Student Presenter(s): Myesha Wilson Mentor(s): Mr. Eric Snow

Intimate Partner Violence

Student Presenter(s): Tiffany Wilson Mentor(s): Mr. Eric Snow

Crime and Disorder: Social Workers Working to Help Reduce Crime

Student Presenter(s): Sydney Wray Mentor(s): Mr. Eric Snow