

### Faculty

- Dr. John Oppliger, Chair
- Dr. Natalie Bird
- Dr. David Boffey
- Dr. Mike Carper
- Dr. Laura Covert–Miller
- Dr. Scott Gorman
- Ms. Shelly Grimes
- Dr. Shelby Hutchens
- Dr. Janice Jewett
- Dr. Tristan Ragland
- Dr. Cole Shewmake
- Dr. Julia Spresser
- ADMINISTRATIVE ASSISTANT
- Susan Downing
- GRADUATE ASSISTANTS Breonna Goodwin
- Zoev Harvey
- Rodney Koenig
- Cameron O'Dell

INSIDE THE SSUE:

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# Pittsburg State University

## Health, Human Performance, and Recreation

### Volume 1 Issue 28

Fall 2023

## Dr. Janice Jewett Elected President of Kansas Recreation & Park Association

Dr. Janice Jewett was elected as President for the Kansas Recreation & Park Association (KRPA). She will begin her term as President-Elect in 2024 and serve as President in 2025. She has 36+ years in the Recreation and Parks Profession (the last 30 being an educator).

### Highlights:

Numerous presentations at the annual KRPA Conference. Coordinated the first KRPA Fitness Workshop Planning and Organization Committee of Sunflower State Games (originally ran under KRPA). Planning and Organization Committee of

Hershey Track and Field Meets at the state level.

**Prior board assignments have included:** Recreation Branch (1993-1995)

- Member at Large-East (1995)
- Education and Research Committee (1996-1999)
- Education and Research Committee
- Member at Large-Southeast (2004)

Colleges and University Chair (2012-present). Grant Reviewer Chair for Healthy Hometown Grant Awards (2017-2019).

Womens Leadership Planning Committee (2018-Present).

Respuisement Toolkit Committee Chain (2020 Present)

Recruitment Toolkit Committee Chair (2020-Present).

As a professor in the HHPR Department, Dr. Jewett and the other Recreation Faculty, assist and mentor students in their professional involvement by encouraging them to join and be involved in organizations such as the Kansas Recreation and Parks Association. Students are provided the encouragement, knowledge and resources to join professional organizations and attend conferences and workshops to grow in their knowledge of Recreation Services, Sport, and Hospitality Management.

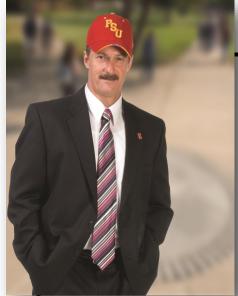
KRPA is a non-profit professional organization representing nearly 1400 members throughout the state in various positions with parks, recreation, and leisure activities.

## **Congrats Dr. Jewett!**



Edited By: Alyx VanRheen Halee Harpenau

## Chaír's Message



Welcome to the Fall/Winter 2023 edition of the HHPR Newsletter. Weather wise, this has been a long, mild fall and we hope the weather has been nice wherever you are as well. We think you will find that the students and faculty have been quite busy. As usual, we have included many photos in this issue as we always try to record their many endeavors.

Many of you know Dr. Janice Jewett. Her involvement with the Kansas Recreation and Parks Association has resulted in her being elected president-elect, which will add to her busy schedule. She teaches in the Recreation Services, Sport and Hospitality Management degree program

as well coordinating our Dance Minor.

The alumni spotlight features a married couple who met at Pitt and are enjoying rewarding careers. We have two new faculty members who fit right in with the HHPR Family and four, new Graduate Assistants as well.

We mentioned in a previous newsletter that the department adheres to the theme "It's More Than the Classroom." By participating in activities in area schools, assisted living centers, conducting research in our labs, attending professional workshops and conferences, performing practicums, field work, and internships, our students gain real-world/career-related experiences.

Please make note of the certifications gained, the presentations given, and the published research investigations. We continue to look good in all areas!

The photos pretty well cover the wide-variety of engagements including the recent Kansas Association for Health, Physical Education, Recreation, and Dance (KAHPERD) annual convention at Century II in Wichita. Once again, our students received the award for the most KAHPERD Student Members in Attendance! With nearly 30 colleges in Kansas with similar departments, the strength of this department always seems to stand out!

Finally, always remember we welcome visits from our alumni family. We would appreciate hearing from alums and with their permission, be able to include them in some manner in future issues of this newsletter.

Thank you,

John Opply -

# ALUMNI SPOTLIGHT Dr. Heath & Brittany Wilson



Greetings Gorillas! My name is Heath Wilson and I am a proud Pittsburg State graduate, Class of 2016. Originally from Wagoner, Oklahoma, I came to Pittsburg State to play football, which I enjoyed a playing career from 2012-2016. Originally a Biology major, I soon learned that it was not for me. After a talk with Ms. Grimes, I knew a path in Physical Education was the right fit. This proved to be the right move, and thanks to the phenomenal faculty in the HHPR Department I was able to realize my passion for teaching, and education.

Since graduating from PSU, I went on to get my Master's in Educational Leadership, as well as my Doctorate Degree in

District Level Leadership. During that time, I taught Physical Education and coached for 5 years in the Olathe School District. While I loved teaching Physical Education, I discovered a passion for Leadership, which is what led me to my new role as Assistant Principal.

The HHPR Department not only helped guide me to a very rewarding career, it's also where I met my wife, right there in the Student Rec Center! My wife, Brittany (Shires) Wilson, is also a HHPR graduate and member of Sigma Sigma Sigma, Class of 2017. She was a Therapeutic Recreation major, and received the Outstanding Therapeutic Recreation



Major of the Year award in 2016! Brittany went on to get her Master's of Occupational Therapy, and graduated in 2020. Since then, she has been practicing as an Occupational Therapist at a rehabilitation hospital in the Kansas City area.



Brittany and I live in Olathe, KS, with our two dogs, Bud, and Callie. We hope to continue to grow our family, and elevate in our careers. We can't say enough about our experience at Pittsburg State, and love any chance to brag about the little town in Southeastern Kansas. We are proud PSU alums and want to help this university thrive. **GoRillas!** 

## **Welcome New Faculty!**





Dr. Tristan Ragland Assistant Professor Exercise Science Dr. Ragland comes to PSU from Rutgers University. Dr. Natalie Bird Assistant Professor Recreation Services, Sport, and Hospitality Management Dr. Bird comes to PSU from Emporia State University.

## **Welcome Graduate Assistants!**



Breonna Goodwin Recreation/Dance



Rodney Koenig Exercise Science



Zoey Harvey Recreation



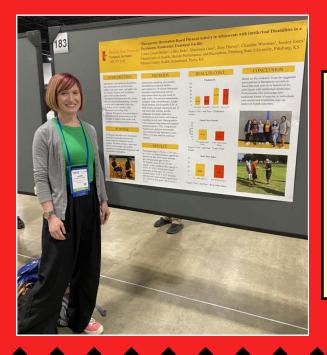
Kamryn O'Dell Exercise Science PAGE 5





Pittsburg State University's Department of HHPR hosted the Annual Kansas Recreation and Parks Association (KRPA) Annual Successful Hands-on Applications for Recreation and Parks Professionals this fall. Chris Nunes, Chief Operating Officer of the Woodlands Township (TX), was the keynote speaker with an enlightening session on creating relevant and meaningful programs and marketing, pricing, and evaluating these programs! After hearing the keynote, participants broke out into various sessions including topics on sports, aquatics, wellness, and recreation. In addition, the Kansas Park Law Enforcement Branch hosted a workshop simultaneously which covered three phases of tactical care under fire. A total of 75 people attended the event which included approximately 55 professionals from throughout the state of Kansas and approximately 20 students.





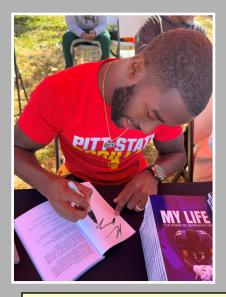
Dr. Laura Covert-Miller presented at the American College of Sports Medicine Annual Meeting in Denver, CO. She presented the research associated with the wellness programming the Ability Lab created for individuals with intellectual disabilities.







Exercise Science major and club member, Megan Henslee, conducted free spinal screenings at the SRC. Megan is the President of the Pre-Chiropractic Club and works at Riggs Chiropractic.



John Brown (left), retired NFL player, former Gorilla Football player, and former HHPR student was back on campus to watch Gorilla Football and promote his new book.

(Right) Members of the PSU Football team receiving the MIAA trophy. Congrats Team!



Ms. Shelly Grimes continues to coordinate fitness programming for the Kansas City Chiefs Fit Gym and works "game day" at Arrowhead Stadium as a guest services representative. With this connection, Grimes was able to meet Damar Hamlin at the Chiefs vs. Bills game on Dec 10th. With her being an American Red Cross Instructor and knowing he was a victim of cardiac rest on the field during a live game last season, against the Bengals, she was honored to meet him. Working at Arrowhead also includes all concert series hosted at the stadium such as the Taylor Swift and Luke Combs concerts. She has been chosen as a Super Bowl 58 Host Committee member to be held in Las Vegas, Nevada, February 2024 in which she will welcome guests to Allegiant Stadium and serve as a fan's first representative.







Dr. Julia Spresser coordinated and instructed during the Parks and Recreation Zumbathon which brought in clothing for area public school students.



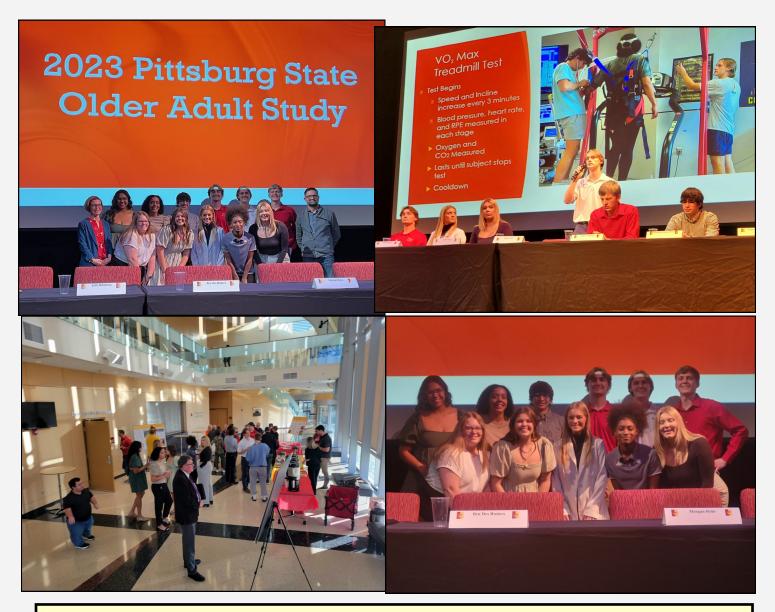
Drs. Janice Jewett and Laura Covert-Miller attended the Kansas Parks and Recreation Women's Leadership Summit. Dr. Covert-Miller was a panel speaker focusing on leadership in parks and recreation. Dr. Jewett is on the KRPA Women's Leadership Summit Planning Committee.

Katherine Pinto, Graduate Assistant in HHPR from 2017-2019, was selected as one of Pittsburg's Women of Distinction for 2024! Katherine received her Master's in Human Performance & Wellness and is a SNAP-Ed and EFNEP Agent for Wildcat Extension District. The Pittsburg Area Chamber of Commerce honored Katherine & other women for the positive difference they make in the community. **Congrats Katherine!** 





Mrs. Grimes spoke at the Women in Business Connection in Miami, Oklahoma, this past summer on Stress Management.



Student research assistants in the Therapeutic Recreation Ability Lab and students in the Exercise Science program presented their findings for the Older Adult Fitness Study conducted this fall to study participants and community members at the Bicknell Center for the Performing Arts. All students did an outstanding job presenting their findings and answering questions from audience members. PAGE II

# **Homecoming Parade**

The HHPR Club participated in PSU's Homecoming Parade by decorating a vehicle owned by Club Sponsor, Dr. Shelby Hutchens. This year's theme was "Gorilla of the Century".



Breonna Goodwin, HHPR Club President, & club member, Belle Peters pose next to the club banner they designed for the Homecoming Parade.



## **Rumble in the Jungle**

PAGE

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HHPR faculty & students turned out to welcome nearly 400 future Gorillas and their families to Rumble in the Jungle. Families received information about the undergrad degrees in Physical Education, Exercise Science, & Recreation. Also noted were the minors in dance, coaching, & minors that complement other disciplines.



# **Faculty Accomplishments**

## **Certifications**

Dr. Scott Gorman: National Archery in Schools (NASP) Basic Archery Instructor (BAI) training and certification.

Dr. Julia Spresser: Zumba Jam Session learning 5 new routines with Carlos Diaz

Ms. Shelly Grimes: Preventing Harassment & Discrimination Certificate, Sensory Inclusive- Certification, Impairment Awareness Certification

PSU receives outstanding service provider for number of trained participants in First Aid/ CPR/AED. from the American Red Cross

Ms. Shelly Grimes completed the American Red Cross Training in Kansas City, Missouri earning the Lifeguard and CPR Instructor Trainer Certification. Due to the nationwide shortage of lifeguards, Grimes obtained a grant from KAHPERD to fund the certification licensure. This certification allows Grimes to train instructors, nationwide in water safety, lifeguarding and 1<sup>st</sup> Aid/CPR skills. This licensure adds to Grimes' previously earned certification of Certified Pool Operator, by the National Pool & Spa Association.

### Peer-Reviewed Articles

Grimes, S., & Oppliger, J. (2023). Considering Effects of COVID-19 on Student Success: The Aftermath, Kansas Association of Health, Physical Education, Recreation and Dance, 95(1), 21-32.

Shewmake, C., Lirgg, C., Hutchens, S. (2023). Mental Toughness in Single and Multi-Sport Athletes. KAHPERD Journal, 95(1), 16. https://www.smore.com/zhywf#bo5w5youdv

Shewmake, C., Boffey, D. (2023). Supporting Mental Health Through Physical Education. KAHPERD Journal, 95 (1), 8. https://www.smore.com/zhywf#bo5w5youdv

### Presentations/Demonstrations

Shewmake, C., Boffey, D., Tucker, K. "Medicine Ball Training for All Levels". KAHPERD Convention, Century II, Wichita, Kansas. November 9, 2023.

Hutchens, S, Gorman, S, Oppliger, J, Grimes, S, Goodwin, B, "Fly-Fishing Basics" KAHPERD Conference, Wichita, KS, Nov. 10, 2023.

Hutchens, S, Gorman, S, Oppliger, J, Goodwin, B, "Orienteering" KAHPERD Conference, Wichita, KS, Nov. 10, 2023.

<u>Gorman, Scott, Pappas, Rick, "Future Professionals Extravaganza" KAHPERD Conference, Wichita, KS, Nov.</u> <u>10, 2023.</u>

Gorman, Scott, Pappas, Rick, "Future Professionals College Bowl" KAHPERD Conference, Wichita, KS, Nov. 10, 2023.

## **KAHPERD** Convention



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## **KAHPERD** Convention



Several faculty & students traveled to Wichita in November to attend/present at the Kansas Association for Health, Physical Education, Recreation, & Dance Convention. Faculty presentations included "Medicine Ball Training for All Levels", "Orienteering", "Fly Fishing", "Simple KS Historical Dances", and "NFL Flag Football in Schools". Several recreation students did poster presentations (featured on pg. 16) on the research being conducted with older adults.



Above are the awards given at the KAHPERD Convention.

Wayne Osness Award– Shelly Grimes

Graduate Student of the Year- Breonna Goodwin

Young Professional of the Year-Shelby Hutchens

**Congratulations!** 

## **KAHPERD Research Presentations**

## **Utilizing Teambuilding Activities to Improve** Cardiovascular Health in Individuals with Disabilities

### **INTRODUCTION**

People with intellectual disabilities (ID) have low levels of physical activity and greater multi-morbidity than those without ID. Those with ID specifically are known to have very abnormal levels of sedentary lifestyles, which makes life expectancy for those individuals significantly lower than average. Studies indicate that physical activity interventions for people with ID are known to help increase health, activities of daily living, independence, and overall quality of life.

#### **METHODS** Adults with intellectual

disabilities receiving day services from a local facility participated in a 45-minute peer fitness program three days a week for six weeks. **Pittsburg State students** participated as peer fitness volunteers.

The 15-meter shuttle run was used to assess cardiovascular fitness. Students were assigned to count the number of laps participants completed.

### **TEAM BASED INTERVENTIONS**

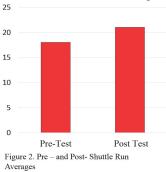
- Team Races Amazing Race, snake pit **Obstacle Courses**
- **Partner Circuit Fitness**



N = 6	
Males	3
Females	3
Mean Age	27.2
Heart Rate (bpm)	73.5
Weight (kg)	99.03
Height (cm)	176.5
Waist Circumference	107.7
(cm)	
Body Mass Index	31.8

Figure 1. Participant Averages

15 Meter Shuttle Run Laps



#### DISCUSSION

Ability Lab

Therapeutic Recreation

After completing the six-week peer fitness program, team building fitness activities showed to have the potential to improve cardiovascular endurance in adults with intellectual disabilities.





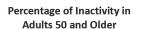
Pittsburg State University Therapeutic Recreation Ability Lab

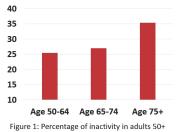
**Older Adult Programming** 

**Golden Gorillas: Community-Based** 

### **ISSUE AT HAND**

According to the Centers for Disease Control, 1 in 4 adults 50 years and older are inactive. Physical inactivity can lead to increased risk for heart disease, stroke, high blood pressure, and high cholesterol. Communities can help older adults become more physically active by designing and enhancing programs to fit their needs. Golden Gorillas is one way to help motivate older adults to increase their physical activity.







### HOW THE ISSUE WAS ADDRESSED

The Golden Gorilla's program was created by a therapeutic recreation class at Pittsburg State University. The program was as an eight-week program where students and older adults met once a week at the local YMCA during the fall semester. Interventions were designed to promote intergenerational activity with the focus of social/emotional, cognitive, and physical skills. Due to the success of the program, it was continued into the spring semester.



### BENEFITS

- Intergenerational relationships
- Community engagement
- Increased physical activity
- Challenged stereotypes



### **INTERVENTIONS**

- Walking Soccer
  - Relay Races
  - · Capture the flag
- Dancing . Human foosball

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## **KAHPERD** Convention



Dr. Janice Jewett and Ms. Halee Harpenau presented at the KAHPERD Conference in Wichita.

Halee presented "Tappy Feet" which featured her research on "Prosthetics in Tap Dance". Participants used Tap Fits (slip on tap shoes) in her class to practice rhythm exercises. Posters shown on page 18.

Dr Jewett presented *"Simple Kansas Historical Dances"*. The participants learned six dances that have historical significance in the state of Kansas. These included the Heel Toe Polka, Tarantella, Oh Susanna, Circassian Circle, Virginia Reel, and the Grand March.



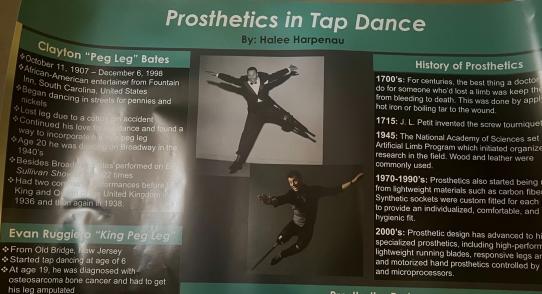








## **KAHPERD** Convention



### History of Prosthetics

**1700's:** For centuries, the best thing a doctor do for someone who'd lost a limb was keep th iq a from bleeding to death. This was done by apply hot iron or boiling tar to the wound.

1945: The National Academy of Sciences set up Artificial Limb Program which initiated organized research in the field. Wood and leather were

1970-1990's: Prosthetics also started being made from lightweight materials such as carbon fiber. Synthetic sockets were custom fitted for each patient to provide an individualized, comfortable, and

2000's: Prosthetic design has advanced to highly specialized prosthetics, including high-performance, lightweight running blades, responsive legs and feet, and motorized hand prosthetics controlled by sensors

### **Prosthetics Today**

 $\star$ 3D-printed designers are serving the worlds of dancers by making prosthetics faster, cheaper, and design software that accommodates more specific modifications than traditional prosthetic designs ▲Jae-Hyun An, a Korean designer, crafted a custom prosthetic for ballet dancers made of a carbonfiber limb attached to a thermoplastic socket that absorbs the shock from the impact of the ballet dancer stepping forward.

"3D printing is an incredible tool for building very precise and very unique instruments. For amputee dancers, special prosthetics can be designed for each individual. -Jae-Hyun An, prosthetic designer

## **Tappy Feet**

The Feet Behind Mumble: Savion Glover

#### Early Life

Savion Glover is an American tap dancer, choreographer, and actor. He was born November 19th, 1973 (age 48) in Newark, New Jersey. He was exposed to music and rhythm when he was rather young by his grandparents. His grandfather, Bill Lewis was a singer and played piano for many bands. His grandmother, Anna Lundy Lewis, was a minister of music at the New Hope Baptist Church. She also got the opportunity to sing and work with Whitney Houston.

Got re-inspired by watching the footage of

Continued on to be a professional tap dance

performer, choreographer, and inspiration

THE Peg Leg Bates

Glover started dancing at a young age and chose to pursue it as a career. He was in fact the youngest person to receive a scholarship from the Newark Community School of the Arts. He soon launched his career by receiving the opportunity to play the lead role in the Broadway Musical, The Tap Dance Kid, before he was even a teenager. Savion's specific style was considered "young and funk" and "freestyle hardcore.'

Tap steps you can find Savion doing in Happy Feet: Flaps, Heels, Toes, Scuffs, Riffs, Digs, Shuffles, Wings & Paddles

A professional tap dancer by the name Savion Glover, his success throughout life with tap dancing, and how he has influenced younger generations along the way through film.

"Funk is anything that gets one's head on beat. It is riding with the rhythm. It is a pulse that keeps one rolling with the beat." -Savion Glover



### Later Life

New York

He continued forward in tap by starring in Bring in 'da Noise, Bring in 'da Funk, which was a Broadway show choreographed by him in 1996. Glover also made his mark on the younger generation by appearing on Sesame Street and was a cochoreographer for the movie Happy Feet and Happy Feet 2 by being the movement behind Mumble, the tap dancing penguin.



#### Today Savion is currently still traveling, tap dancing, choreographing, and is still teaching with companies around the nation. One of the places you could find him and take class from him is occasionally at the Broadway Dance Center in New York City,

Posters by: Halee Harpenau

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# **DANCE NEWS**



## **HHPR Dance Instructors**



Kassandra Burns, Kassandra Lewis, Alyssa Strader, and Dr. Janice Jewett recruiting future dance minors at the Major's Fair!





Halee Harpenau and Kassandra Lewis taught the Waltz at the President's Society Event!



# **DANCE NEWS**







Twenty students from Dr. Janice Jewett's Dance Appreciation Classes performed for residents at Ascension Via Christi Village. The students danced several line dances, a square dance, polka, Grand March, and small group dances which they choreographed! The residents commented on their favorites and dances they recognized or had danced themselves!



Lexi McGowen was our Fall Informal Dance Concert Emcee. Great Job Lexi!





Will Jewett, son of Dr. Janice Jewett, was present for a Q & A session with dance students. Will performs in musicals & plays in New York City. THANK YOU Will for sharing your expertise!

# **DANCE NEWS**





Dance Appreciation students went to the Family Resource Center where they taught 4-year olds fun dances, such as the Hokey Pokey, Chicken Dance, Baby Shark, etc. The class also visited the 4th graders at Westside Elementary. All enjoyed learning the dances.



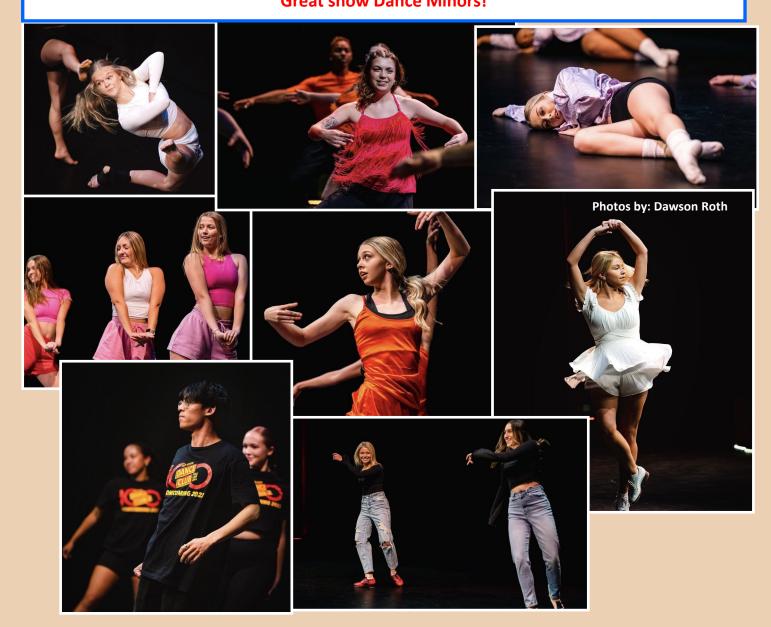




# **Fall Dance Concert**



The Minor in Dance Program put on their first Fall Informal Dance Concert at the Miller Theatre. This show was student-focused, student-designed, and student-inspired. Students were able to showcase their own choreography! Great show Dance Minors!



# **Exercise Science News**

The Exercise Science program started the new academic year on a positive note, with the addition of Asst. Professor Tristan Ragland joining us from his post-doctoral training at Rutgers University. Dr. Ragland has settled into this role and the students have enjoyed his teaching methods, thus far. With the help of Adam Mortensen, HHPR Graduate Assistant, Dr. Ragland recently submitted a research abstract to both the Regional (Kansas City, MO. March 2024) and National (Boston, MA. May 2024) American College of Sports Medicine (ACSM) conferences investigating the relationship between socioeconomic status and health outcomes in female undergraduate students here at PSU. If accepted, Adam will have the opportunity to present the data at the Regional ACSM conference.

The Exercise Science students continue their hands-on training in the Applied Physiology and Human Performance Laboratories, learning new and exciting methods of sports performance training, fitness instruction, and clinical assessments of cardiopulmonary fitness.

The students in the Human Performance/Strength and Conditioning Emphasis are gearing up to begin a research study, developed by principal investigator Asst. Prof. David Boffey, Ph.D., during the Spring 2024 semester, on the effects of bilateral vs. unilateral training in college softball athletes. This research study will provide those students with the opportunity to begin using their acquired skills and knowledge of human performance to better understand the relationship between testing and performance, and current evidence-based strength and conditioning methods. Two former Exercise Science students have returned to PSU to earn graduate degrees. After completing their undergraduate internships in Strength and Conditioning, Keifer Tucker and Kam ODell (TCU and PSU, respectively) were admitted to the Masters in HHPR program this Fall. Keifer is a Graduate Assistant for the PSU Strength and Conditioning program, and Kam is a Graduate Assistant in the Dept. of HHPR who is advised by Dr. Boffey. Kam will be the lead graduate student investigator for the softball study.

The students in the Clinical Emphasis, in collaboration with students in the Therapeutic Recreation Program, completed data collection for the Functional Fitness in Older Adults ( $\geq$  60 years old) Study developed by principal investigator Prof. Laura Covert-Miller, Ph.D. and co-investigator Prof. Mike Carper, Ph.D. The Clinical students administered graded exercise tests and DEXA scans (e.g., bone mineral density and body composition) for this portion of the study. In total, fifteen of the forty recruited subjects made their way through our laboratories this semester. Our students gained valuable insights on interpretation of the results as well as the presentation of the results to the participants. They also gained noteworthy experiences working in conjunction with students from a unique discipline (i.e., Therapeutic Recreation) and learned how to work as a team. The Therapeutic Recreation and Exercise Science students presented their findings on December 7, 2023, at the Bicknell Family Center for the Arts to an audience of current and future study participants, PSU administrators, faculty, staff, and other invited guests. The Older Adult Study will continue in the 2024 academic year.

A total of four undergraduate students and one graduate student, in partnership with Prof. Carper and former Asst. Prof. Allison Barry, Ph.D., published research conducted in the Applied Physiology Laboratory in three different international scientific journals in 2023. Currently, there are two manuscripts under review for publication. The citations are as follows:

Nathan D. Dicks, Marni E. Shoemaker, Kathryn J. DeShaw, **Michael J. Carper\***, Kyle J. Hackney, and Allison M. Barry. Contributions from Incumbent Police Officer's Physical Activity and Body Composition to Occupational Assessment Performance. *Frontiers in Public Health: Occupational Health and Safety*. **21 June, 2023**, Volume 11 2023.

**Brin, H.N.\*, Perumal, M.D.\*, Kopp, S.R.\*, Hutchenson, E.L.\***, Dicks, N.D., Walch, T.J., **Carper, M.J.**, and Barry, A.M. Comparable Levels of Objectively Measured Physical Activity and Cardiorespiratory Fitness in Firefighters from Two Mid-West Fire Departments. *Journal of Occupational and Environmental Medicine*. 65(6):e435-e439, **June 2023**.

Dicks, N.D., **Brin, H.N.\*, Perumal, M.D.\*, Hutchenson, E.L.\*, Kopp, S.R.\***, Walch, T.J., **Carper, M.J.\*** and Barry, A.M. An Occupational Specific VO<sub>2MAX</sub> Protocol for Structural Firefighters: An Update. *Journal of Occupational and Environmental Medicine*. <u>65(1):p 29-33</u>, **January 2023**.

Kathryn J. DeShaw, **Halle N. Brin\***, Nathan D. Dicks, **Michael J. Carper\***, Marni Shoemaker, and Allison M. Barry. Perceptions of Exercise Behaviors in Firefighters: An Application of the Health Belief Model. Health Communications. **Submitted and Under Peer Review** 

**Brin, H.N.\*, Sigmund, B.G.\***, Dicks, N.D., DeShaw, K.J., Walch, T.J., **Carper, M.J.\***, and Barry, A.M. The Effects of High-Intensity Functional Training (HIFT) on the Perceptions of Exercise in Middle-Aged Females: A Pilot Study. *IJERPH*. **Submitted and Under Peer Review** 

Dr. Boffey recently published his Reserve Officers' Training Corps (ROTC) research in an international journal. The citation is as follows:

**Boffey, D\***, \*DiPrima, JA, Kendall, KL, Hill, EC, Stout, JR, Fukuda, DH. (2023). Influence of body composition, velocity profiles, and sex-related differences on Army Combat Fitness Test Performance. Journal of Strength and Conditioning Research, 37(12), 2467-2476.

Additionally, two graduate students presented their research at the National Strength and Conditioning Conference (July 2023) in Las Vegas, NV. The citations are as follows:

Allison M. Barry, **Halle N. Brin\***, Nathan D. Dicks, **Michael J. Carper\***, Marni E. Shoemaker, and Kathryn J. DeShaw. A Comparison of Perceptions of Exercise Behaviors in Firefighters from Two Midwest Fire Departments. **National Strength and Conditioning Association National Conference**. July 2023. Las Vegas, NV.

**O'Dell, KS\*, Zornes, KL\*, Cikot, EM\*, Boffey, D.\*** Relationship between Army Combat Fitness Test scores, jump and pullup tests. Presented at NSCA National Conference, July 2023. Las Vegas, NV.

\*Bold faced type are PSU Exercise Science students and/or faculty.

The faculty and students in the Exercise Science Program continue to conduct and disseminate their research to uphold their responsibility of adding to the body of knowledge in Exercise Science. The students in the Exercise Science Program continue to be successful at earning their spots in doctoral-level graduate programs in Physical and Occupational Therapy, Chiropractic Medicine, and other healthcare programs as well as earning their spots in Masters programs here at PSU and beyond. This has been a long-standing occurrence in the Exercise Science Program, so we are no longer surprised by these accomplishments. We continue to have great groups of students who are hardworking, dedicated, and enthusiastic about learning.

We welcome former Exercise Science students, other PSU alumni, or future students to come visit our laboratories and our outstanding Exercise Science Program. We are always eager and willing to talk all things Exercise Science.

For the Exercise Science Program,

Mike Carper, Ph.D.



Pictured above are Strength and Conditioning students who did speed, plyo and change of direction technique training and testing at the Plaster.

At right, Dr. David Boffey presented student research from the Human Performance Lab at the NSCA National Conference in Las Vegas this past summer. (Poster presentation is found on the following page.)

# Exercise Science News

#### ACKGROUND

- The Army Combat Fitness Test (ACFT) is the United States Army's new physical fitness test of record.
  The ACFT consists of six total events, with several new
- events measuring strength and power. • The relationship between common field tests of strength/power and ACFT performance have not been investigated.

#### PURPOSE

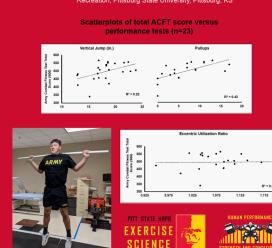
 Examine the relationship between ACFT performance and common vertical jump and pullup tests in Army ROTC cadets.

#### METHODS

- Male (n = 17) and female (n = 6) Army ROTC cadets conducted the ACFT according to Army guidelines.
- On a separate day, vertical jump performance was assessed with static-start squat jumps and countermovement jumps using a jump mat.
- All jumps were performed with a PVC pipe on the back for standardization.
- Eccentric Utilization Ratio was calculated as countermovement jump height /squat jump height.
- After 5 minutes of rest, cadets performed a maximum repetition pull-up test at a standardized grip width with the thumb in line with the acromioclavicular joint.
- Pearson's correlation coefficients were used to assess the relationship between total ACFT score, individual ACFT events and vertical jump height, Eccentric Utilization Ratio, and number of pullups completed.
   Statistical significance was set at < 0.5.</li>

## RELATIONSHIP BETWEEN ARMY COMBAT FITNESS TEST SCORES, JUMP AND PULLUP TESTS

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#### RESULTS

- Squat jump and countermovement jump height both had significant positive correlations with total ACFT score (r = .44, p = .03; r = .47, p = .02, respectively).
- Squat jump and countermovement jump had significant correlations (p < 05) with each individual event (r = .71 to .73, r = .74 to .78, respectively) other than Plank (r = .26, p = .29, respectively) and 2-Mile Run (r = .28, p = .33, respectively).
- Eccentric Utilization Ratio demonstrated no relationship with ACFT score (r = .02, p = .92) or with any of the six individual tests (r = -.15 to .22).
- Pullup repetitions had a significant positive correlation with total ACFT score (r = .61, p < .01) and all individual events (r = .63 to .66) other than the Plank (r = .39, p = .07).

#### CONCLUSIONS

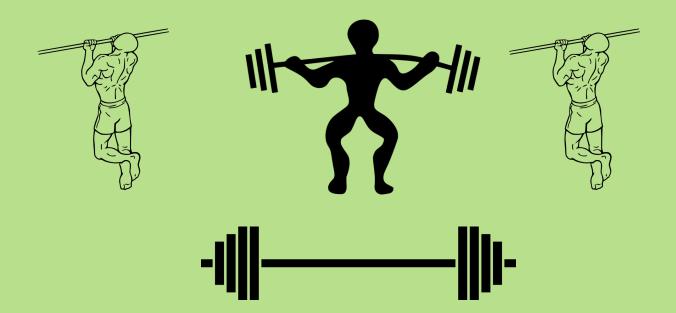
- Lower body power output as measured by vertical jumps may exert a strong influence on ACFT performance.
- Squat jumps and countermovement jumps showed similar relationships with ACFT scores
- Eccentric Utilization Ratio may be of little utility when analyzing the influence of the stretch-shortening cycle in this context.
- Upper body strength as measured by the pullup may also influence ACFT performance. Performance on the Plank event was not related to these common field tests.

#### PRACTICAL APPLICATIONS

 Tactical strength and conditioning coaches can use simple expedited field tests of pullups and countermovement jumps to estimate ACFT performance, without needing to calculate Eccentric Utilization Ratio.

• Estimating performance on the Plank and the 2-Mile Run events may require different field tests.





## **Physical Education News**



Students in Ms. Grimes Theories II Class played NFL Flag Football with students from Pittsburg Middle School.



## **Physical Education News**







Ms. Grimes' Theories I Class played Pickleball at Schlanger Park. Pictured: Lane McNeley, Jacob Delatorre, Dominik Stadlman, and Kievan Myers



Students in Dr. Spresser's First Aid Class are practicing bandaging each other. At the end of the semester, students are able to purchase a 2 year certification card upon successful completion of their skill checks.





## **Physical Education News**

Dr. Julia Spresser's Theories III Class taught gymnastics to elementary students.



## Ms. Grimes' Golf students



# **RECREATION NEWS**

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Therapeutic Recreation alum, Libby Rohr, was a guest speaker this semester. Libby discussed her role as a CTRS at a substance abuse facility in the Kansas City area and also provided a few therapy interventions for the students to try out! Thank you, Libby! <u>#OAGAAG</u>



The Therapeutic Recreation and Exercise Science students collaborated on an Older Adult Study that is for adults ages 60 and up. Students have been providing functional fitness assessments, testing balance, upper and lower body strength, flexibility, and aerobic endurance, and have been providing DEXA scans and VO<sub>2 max</sub> tests for these adults as well. This project is being conducted to collect overall health and fitness information about older adults around the community.



# **RECREATION NEWS**

Students in the Assessment and Documentation in Therapeutic Recreation Class designed and implemented mock assessments and different interventions for Older Adults at a local senior living community.





Students in the Interventions in Therapeutic Recreation Class met with New Hope residents to provide a day service program for individuals with various disabilities. Students created and implemented various activities and interventions throughout the semester.

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# **RECREATION NEWS**

Pitt State Alum and CTRS Chris Hanna (right) was a guest speaker in the Diagnostics Groups in TR Class. Chris discussed his job as a CTRS at Freeman Hospital and the different populations he works with.





Sophie Lowe, CTRS and Program Director at Camp Acacia (left) was a guest speaker for the Interventions in TR and Assessment and Documentation in TR Class, & discussed different TR interventions and ways to assess and document specific populations.

Students in the Diagnostic Groups in Therapeutic Recreation Class engaged in different interventions in class that are beneficial and made for different populations with various diagnoses.





# **RECREATION NEWS**



Dr. Covert-Miller is a member of the Southeast Kansas Alzheimer's Walk Committee. She volunteered at the Walk this fall. The SEK Walk exceeded their goal of \$20,000 by raising over \$24,000. Thanks to all who attended and supported the cause!



Dr. Laura Covert-Miller was a guest speaker at the Kansas Special Olympics Conference this fall in Salina, KS. She spoke on the importance of physical activity for individuals with intellectual disabilities.

PSU Alum Steve Foster, now of Jackson Hole, Wyoming, stopped by this semester to share lessons from his storied career in the public and private recreation field with our Methods & Leadership Class. Mr. Foster discussed the importance of being intentional during times of change, and the differences between the various sectors he worked in. We greatly appreciated his time and his willingness to share his knowledge and experience with us!





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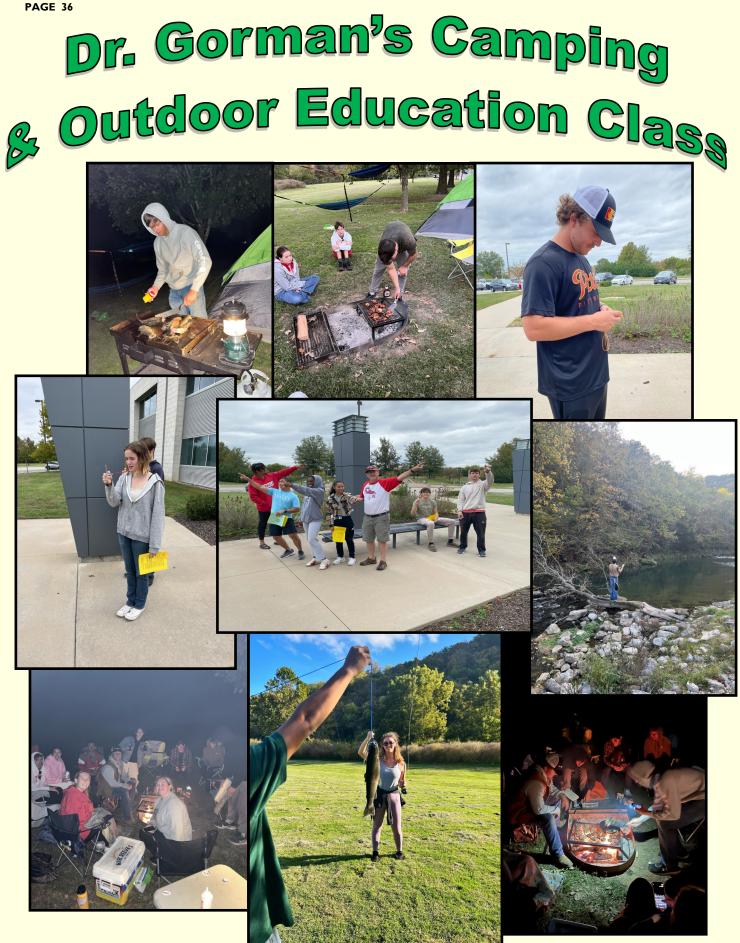
# **TR-Iffic Day of Play**

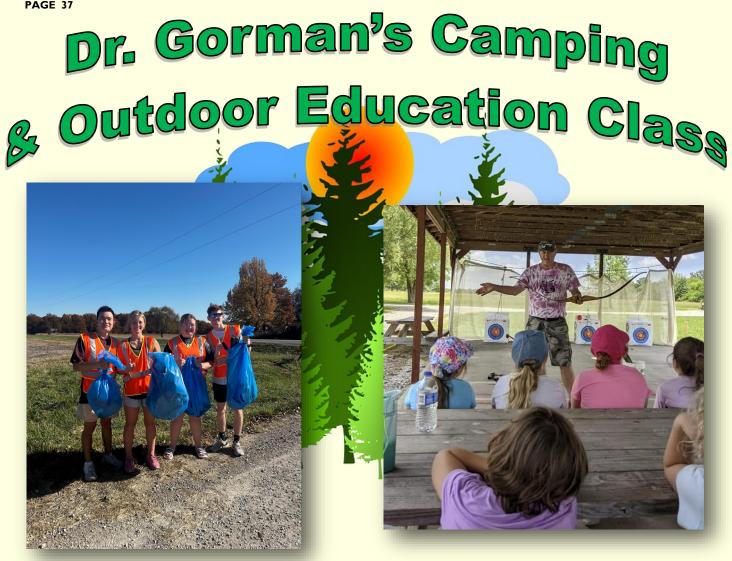


Over 100 area students had a great time with the fun activities provided by the Therapeutic Rec students. The event was held in the Plaster with many volunteers assisting. More photos on the following page.

# **TR-Iffic Day of Play**









Dr. Scott Gorman's Camping Classes had a busy semester. Students learned skills about camping, such as setting up campsites, canoeing, fly fishing, & preparing meals over a campfire. Lessons in Orienteering were most helpful. Students also did community projects such as teaching Archery to the Girl Scouts & Highway Cleanup.

# Congratulations to our Graduates!

## Exercise Science

Justin Campbell Ethan Cikot Shelbi Day Benjamin Des Rosiers Alejandro Garcia-Perez Morgan Rohr Lindsay Shippy Abigail Voss Christine Williams

## **Physical Education**

Austin Coffman Erin Davis Jacob Ewer Landon Hardman Tyler Larison Tanner Shalkoski



## <u>Graduate</u>

Kylee Bohle Emma Catterson Drake Gammon Annamarie Gowing Keelah Griffith Kandi Midgett Jerrod Murphy Brian Seva **Recreation** 

Jerek Butcher Victoria Carder Romello Hamilton Trase Jeffries Rico Payton

Hospitality Management <u>Certificate</u> Victoria Carder

## A Special THANKS to Those Who Gifted The HHPR Endowment

Andrew & Shanna Albright John & Amanda Allen Tommy & Jill Ayers **Bob** Ahrens Dr. David Boffey **Missy Clark** Dr. Mary Coplen Ron & Susan Downing Kylie Edgecomb Patrick & Stephanie Forbes **Stephen Foster** Dr. Scott & Beth Gorman Michelle Grimes Richard & Stephanie Grinage Lisa Gunya Dr. Robert Hefley Dr. John & Kathy Oppliger Pamela & Guy Owings Dr. Cole & Jennifer Shewmake Marian Simpson Michael & Jo Slaughter Gary Thompson **Kevin Woods** Randall & Kathleen Wrensch

