



WELLSTAR
COLLEGE OF
HEALTH AND
HUMAN
SERVICES

2025

RESEARCH, ENGAGEMENT, & DISCOVERY WEEK

RED DAY: APRIL 11, PRILLAMAN HALL



PROGRAM AT-A-GLANCE

APRIL 11, 2025

**PROSTHETICS & ORTHOTICS
CAPSTONE RESEARCH**

8:00 AM - 11:00 AM

KEYNOTE ADDRESS

11:00 AM - 12:10 PM

**STORYTELLING
PRESENTATIONS**

12:10 PM - 1:00 PM

COMMUNITY PARTNER AWARDS

1:00 PM - 1:30 PM

POSTER SESSION

1:30 PM - 2:30 PM

PODIUM PRESENTATIONS

2:30 PM - 4:30 PM

STUDENT RESEARCH AWARDS

4:30 PM - 4:45 PM



PROSTHETICS & ORTHOTICS CAPSTONE RESEARCH

PRILLAMAN HS 1101, 8:00 AM

8:15 COMPARISON OF A CONVENTIONAL VS. NOVEL
PROTOTYPE LOW-PROFILE PROSTHETIC FOOT DURING SLOPE
ASCENT

Adam Kiel, Kailee Greenough, Jenny Self

8:30 AN INVERSE DYNAMIC MODEL TO EVALUATE THE
BIOMECHANICS OF WHEELCHAIR PROPULSION IN UPPER
EXTREMITIES

Drew Sloan, Jazmine Smith

8:45 SENSITIVITY OF AN IN-CLINIC MARKERLESS MOTION
ANALYSIS SYSTEM IN DETECTING RESTRICTED JOINT
MOTION

Kailey LeMay, Rey Turner

9:00 COMPARING CRAWLING DEVELOPMENT IN CHILDREN
WITH LIMB LOSS/LIMB DIFFERENCE TO TYPICALLY
DEVELOPING CHILDREN

Megan Knapp, Lyle Blackwelder, Lucas Northway

9:15 DESIGN CONSIDERATIONS FOR EARLY ORTHOTIC
INTERVENTION OF TALIPES EQUINOVARUS BASED ON
PONSETI TREATMENT PRINCIPLES

Maya Roberts, Alexis Paulson





P&O CAPSTONES (continued)

9:30 BIOMECHANICAL DESIGN CRITERIA FOR MEASURING CALCANEAL DISPLACEMENT WITH A DORSAL CONTROL STRAP

Amanda Cox, Jolie Cox, Marleigh Savell

9:45 ACHILLES TENDON STIFFNESS IN VARIED ANKLE JOINT FOOT POSITIONS USING A NOVEL VIBRATORY ELASTOGRAPHY METHOD

Garrett Tyler, Hope Delagrange

10:00 THE INFLUENCE OF RIGID CARBON COMPOSITE PLATES ON FORCE AND PRESSURE DURING GAIT: A PILOT STUDY

Lex Polote, Mason Shelor, Kai Clifford


10:15 A COMPUTER AUTOMATED MEASUREMENT SYSTEM FOR ANKLE FOOT STIFFNESS

Gwenevere Wrye, Kendrick Hicks

10:30 AN ANKLE FOOT ORTHOSIS WITH MODULAR ANKLE JOINT STIFFNESS CAPABILITIES

Joseph Gambin, Alan Ramsey, Vanessa Young



A photograph of Jarryd Wallace, a male athlete, smiling and holding up a silver medal with a red ribbon. He is wearing a blue USA Paralympic jacket. The background is a blurred stadium.

KEYNOTE
ADDRESS
11:00, HS 1101

JARRYD WALLACE



TWO-TIME PARALYMPIC
MEDALIST AND WORLD
CHAMPION ATHLETE

Jarryd Wallace's pursuit of world-class athletics took a detour at age 18 when he was diagnosed with Compartment Syndrome resulting in the amputation of his leg. Embracing the spirit of "living life to the fullest regardless of circumstances," Jarryd turned his efforts to paralympic sport. He has since set four world records, become a three-time World Track and Field Championship gold medalist and a 12-time US Champion, and won the Bronze Medal in long jump at the 2020 Tokyo and 2024 Paris Paralympic Games.



RESEARCH STORYTELLING SESSION

PRILLAMAN HS 1101, 12:10 PM

12:10

INTERVENTIONS IN TYPE II DIABETES: IS EXERCISE THE
TOUGHEST PILL TO SWALLOW?

Brian Kliscczewicz

12:20

DEVELOPING AND IMPLEMENTING A HYDRATION
INTERVENTION IN COLLEGE STUDENTS

Mitchell Zaplatosch

12:30

THE TOPOWA PROJECT: RESEARCHING WOMEN'S MENTAL
HEALTH AND RESILIENCE IN THE KAMPALA'S SLUMS

Monica Swahn

12:40

CHALLENGING CONVENTION: KIDS WITH LIMB LOSS

Mark Geil



COMMUNITY PARTNER AWARDS

PRILLAMAN HS 1101, 1:00 PM

CHRISTIAN ESPINOZA
LA AMISTAD

TIFFANY GARITO
WELLSTAR KENNESTONE HOSPITAL

APRIL MITSKEWICZ
HANGER CLINIC

AMAR PATEL
PT SOLUTIONS

KARLA RAMIREZ
KSU CHILDREN AND FAMILY PROGRAMS

STACEY STEWART
WELLSTAR NGOC JASPER

KYLE TAYLOR
I9 SPORTS

KAREN THULA
WELLSTAR PAULDING



POSTER SESSION

PRILLAMAN INDOOR PLAZA, 1:30-2:30

- 1 An Ankle Foot Orthosis with Modular Ankle Joint Stiffness Capabilities – Gambin, Ramsey, Young, Tekes, Kogler
- 2 A Computer Automated Measurement System for Ankle Foot Stiffness – Wrye, Hicks, Tekes, Kogler
- 3 Sensitivity of an In-Clinic Motion Analysis System in Detecting Restricted Joint Motion – Turner, LeMay, Hales, Johnson
- 4 Comparison of a Conventional vs. Novel Prototype Low-Profile Prosthetic Foot During Slope Ascent – Greenough, Kiel, Self, Geil, Bartlett, Lawson, Jones
- 5 Comparing Crawling Development in Children with Limb Loss/Limb Difference to Typically Developing Children – Knapp, Blackwelder, Northway, Geil
- 6 Achilles tendon stiffness in varied ankle joint foot positions using a novel vibratory elastography method: A Pilot Study – Tyler, Delagrance, Salman, Kogler
- 7 Design Considerations for Early Orthotic Intervention of Talipes Equinovarus Based on Ponseti Treatment Principles – Roberts, Paulson, Kogler
- 8 The effects of a Rigid Carbon Composite Plate and its influence on force applied to the plantar surface of the foot throughout gait: A Pilot study – Polote, Shelor, Clifford, Kogler
- 9 Biomechanical Design Criteria for Measuring Calcaneal Displacement with a Dorsal Control Strap – Cox, Cox, Savell, Kogler

(continued)



POSTER SESSION (CONTINUED)

- 10 An Inverse Dynamic Model to Evaluate the Biomechanics of Wheelchair Propulsion in Upper Extremities - Smith, Sloan, Johnson, Hales
 - 11 Exploring Technology-Aided Education in Dementia Care - Boadu, Williamson
 - 12 Cultural Competency in Nursing Education: Assessing Knowledge Among Nurse Educators in Northwest Georgia's Nursing School - Mendoza
 - 13 I Want to Show that there are Drunkards in our Community: Young Women's Lived Experiences with the Alcohol Environment and Associated Harms in the Kampala Slums - George
 - 14 Patterns and Predictors of Colorectal Cancer Screening Behaviors Among African Immigrants in the United States: An Integrative Review - Baidoo, Konneh, Ortiz, Eke
 - 15 Modeling Homelessness: An Agent-Based Simulation of Social Dynamics and Housing Instability - Macke
 - 16 Fatigue without Borders: The Effect of Blood Flow Restriction during Acute Aerobic Exercise on Non-Local Muscle Fatigue - Acosta, Abouward
 - 17 Beyond The Basic: Integrating Blood Sugar as the 5th Vital Sign - Onyirimba
 - 18 Influence Of Daily Step Count on Fluid Intake and Hydration Biomarkers in Underhydrated College Students - Wilusz, Martinez
 - 19 Measuring Abdominal Adiposity in Pregnancy: Protocol Considerations - Boughadou
-



PODIUM PRESENTATIONS

PRILLAMAN HS 1101, 2:30 PM

2:30 ACUTE EFFECTS OF SHORTER BLOOD FLOW RESTRICTION CYCLES ON THE MICROVASCULATURE
Bacchus, Ganley, Davis (Carter)

2:45 IS HANDGRIP STRENGTH A PREDICTOR OF LOWER-BODY PHYSICAL FUNCTION IN OLDER WOMEN?
Buford, Harper, Anderson, Carlstrom (Hester)

3:00 DOES THE SPEED OF IMAGINED MUSCLE CONTRACTIONS AFFECT CORTICOSPINAL AND MUSCLE FUNCTION RESPONSES?
Anderson, Acosta, Buford, Carlstrom, Offutt (Hester)

3:15 THE EFFECTS OF ADDED BLOOD FLOW RESTRICTION TO MODERATE INTENSITY AEROBIC EXERCISE ON ACUTE METABOLIC RATE AND CARDIOVASCULAR RESPONSES IN ADULTS
Abouward, Acosta (Zaplatosch, Hester, Carter)

3:30 VERTICALLY INTEGRATED PROJECT (VIP) LABS & STUDENT SUCCESS: A PATH TOWARDS STUDENT EXPERIENTIAL LEARNING IN THE SOCIAL SCIENCES
Garefino, Rhue

3:45 ROLE-PLAYING SBAR TOOL TO IMPROVE COMMUNICATION SKILLS IN FIRST-SEMESTER NURSING
Garringer, Adebayo

4:00 TITLE IX COMPLIANCE AND SCHOOLS INVOLVED IN THE DI MEN'S BASKETBALL TOURNAMENT
Willett, Phillips

4:15 AN EVIDENCE-BASED INTERVENTION FOR ADDRESSING NURSING STUDENT AND NURSING INCIVILITY PLUS FACTORS WHICH INFLUENCE MORAL COURAGE.
Varagona, Givler



#TRANSFORMINGLIVES



KENNESAW STATE
UNIVERSITY

WELLSTAR COLLEGE OF HEALTH
AND HUMAN SERVICES

WWW.KENNESAW.EDU/WELLSTAR/RESEARCH/