

# **Undergraduate Student Research Projects Conducted in the Exercise Science Program**

*Department of Kinesiology  
School of Professional Studies  
SUNY Cortland*

## **Student Research from 2001-2002**

### **Effects of vision and stance on balance**

*Jody Baldwin, Peter Braglia, Ann Marie Cahill, Jeanette Cox, Undergraduate students  
Faculty: Joy Hendrick, James Hokanson, Peter McGinnis, Wolfgang Krause*

### **Effects of supination and pronation on elbow flexor strength during a bicep curl.**

*Peter Braglia, Undergraduate Student  
Faculty: Peter McGinnis*

### **A comparison of balance and gait between sedentary and aerobically active older adult women.**

*Ann Marie Cahill, Undergraduate Student  
Faculty: Joy L. Hendrick*

### **The Relationship between ankle injury on balance in collegiate athletes**

*Jody M. Baldwin, Undergraduate student  
Faculty: Joy L. Hendrick*

### **Effects of caffeine on running economy and substrate utilization during exercise for endurance trained athletes**

*Jeannette Cox, Undergraduate Student  
Faculty: James Hokanson*

### **Validity and reliability of heart rate measurements on precor stationary trainers**

*Jeff Rubin and Tom Munson, Undergraduate students  
Faculty: James Hokanson*

### **Does muscular efficiency correlate with fitness level?**

*Karen O'Sullivan, Undergraduate student  
Faculty: James Hokanson, Peter Allen*

## **Student Research from 2002-2003**

### **Is one's preferred jumping frequency, the most efficient?**

*Elizabeth Ackley, Clifford Coleman Jr., Carrie Costello, Shawn Jackett, Megan Rogers,  
Elizabeth Szotyori, Undergraduate Students  
Faculty: James F. Hokanson, Peter M. McGinnis, Joy L. Hendrick*

**The Fidelity of Ski Jump Training Drills with the Take Off Phase of Ski Jumping**

*Elizabeth Szotyori, Undergraduate Student*

*Faculty: Peter McGinnis*

**EMG Comparisons for Trunk and Upper Body Muscles while Performing the Horizontal Press on a Stable Bench and on a Stability Ball.**

*Megan Rogers, Undergraduate Student*

*Faculty: Philip J. Buckenmeyer*

**Is There a Difference in Optimal Uphill Stride Frequency Between Trained and Untrained Runners?**

*Elizabeth Ackley, Undergraduate Student*

*Faculty: Peter McGinnis*

**Muscular Efficiency in Off-Road Cycling**

*Shawn Jackett, Undergraduate Student*

*Faculty: James F. Hokanson*

**Is there a best time of day to exercise?**

*Carrie Costello, Undergraduate Student*

*Faculty: James F. Hokanson*

**Fitness attributes of Cortland firefighters**

*Heidi Fralick, Undergraduate student*

*Faculty: James Hokanson, Philip Buckenmeyer*

**Physical Activity demographics of Cortland County residents**

*Cindy Adams, Undergraduate student*

*Faculty: Philip Buckenmeyer, James Hokanson*

**Student Research Projects from 2003-2004**

**Heat and Humidity Effects on Motor Performance in Golf**

*Jason Alexander, Ryan Hickey, Jay LaBarbera, Trista Morgan, Carin Piacente, Lara Stone, and*

*John Treadwell, Undergraduate Students*

*Faculty: Joy L. Hendrick, Jeff Bauer, James Hokanson, Philip Buckenmeyer*

**The relationship between childhood obesity and balance**

*Jason Alexander, Undergraduate Student*

*Philip Buckenmeyer, Assistant Professor, Exercise Science and Sport Studies*

**Using specially designed trikes to teach bicycling to children with and without delayed motor skills**

*Carin Piacente, Undergraduate Student*

*Faculty: Joy L. Hendrick*

**Force Differences Generated During Gait for Obese and Muscular Subjects**

*Jay LaBarbera Undergraduate Student*

*Faculty: Jeff Bauer*

**Effects of two backpacks with differently placed loads on subjects' stability**

*John Treadwell, Undergraduate Student*

*Faculty: Jeff Bauer*

**Comparison of Batted Ball Speeds of Five Different Metal Bats in Fastpitch Softball**

*Lara Stone, Undergraduate Student*

*Faculty: Jeff Bauer, Joy L. Hendrick*

**Group Cohesion and Self-handicapping in High School Varsity Baseball Players**

*Ryan Hickey, Undergraduate Student*

*Faculty: Wendy Hurley*

**Muscle fiber type estimation of Women Ice Hockey Players**

*Christine Napinger, undergraduate student*

*Faculty: James Hokanson*

**Student Research Projects from 2004-2005**

**McD-ometers: A Validity Study**

*Lindsay Althouse, Sarah Baron, Brooke Bazinet, Jessica Duffy, Carolyn Guinn, Christine Lyles, Kate McDonald, Gina Salvatore, Jonathan Schwing, Jamie Switzer, Mike Talerico, Shauna Verbiar, Paul Zalewski, Undergraduate Students*

**Hand-Held or Hands-Free Cell Phones, Do They Affect Reaction Time?**

*Jamie Switzer, Undergraduate Student*

*Faculty: Joy L. Hendrick*

**Manual Dexterity Differences in Frequent and Infrequent Computer Users**

*Gina M. Salvatore, Undergraduate Student*

*Faculty: Joy L. Hendrick*

**The Effects of Noise and Coaction on Anxiety and Choice Reaction Time**

*Sarah Baron, Undergraduate Student*

*Faculty: Joy L. Hendrick*

**Effects of Different Kinds of Music on Motor Tasks**

*Shauna Verbiar, Undergraduate Student*

*Faculty: Wendy Hurley*

**The Effect of PNF Stretching on Spring Performance in College Students**

*Jennifer Mayack, Undergraduate Student*

*Faculty: Philip Buckenmeyer, Joy L. Hendrick*

**Foot Position and Force Production during the Sprint Start**

*Paul Zalewski, Undergraduate Student*

*Faculty: Peter McGinnis*

**Basal Metabolic Rate of Obese and Non-obese College Students**

*Christine Lyles, Undergraduate Student*

*Faculty: James F. Hokanson*

**Does Squatting have an Effect on 1RM Strength?**

*Mike Talerico, Undergraduate Student*

*Faculty: Philip Buckenmeyer*

**Inhibiting Effects of Stretching on the Running Performance of College Female Athletes**

*Brooke Bazinet, Undergraduate Student*

*Faculty: Philip Buckenmeyer*

**Specificity of Dynamic Balance in Relation to Sports**

*Jonathan Schwing, Undergraduate Student*

*Faculty: Jeffery Bauer*

**Effects of Obesity on Excess Post-exercise Oxygen Consumption in College Students**

*Lindsay Althouse, Undergraduate Student*

*Faculty: James F. Hokanson*

**Effects of Regular Physical Activity on Menstrual Discomfort**

*Jessica Duffy, Undergraduate Student*

*Faculty: Philip Buckenmeyer*

**Body Image and the Occurrence of Exercise Dependence in College-aged Females**

*Carolyn Guinn, Undergraduate Student*

*Faculty: Philip Buckenmeyer*

**Student Research Projects from 2005-2006**

**Differences in Recovery between Sprinters and Distance Runners after 200m Sprint and VO2 Max Test**

*Jennifer Longwell, Undergraduate Student*

*Faculty: Jeff Bauer*

**Comparison of Ventilation Rates in Ice Hockey Players On and Off Ice**

*Angela Paladino, Undergraduate Student*

*Faculty: James Hokanson, Jeff Bauer*

**Strength Differences in Individuals Training with Free Weights and Weight Machines on the Bicep Curl**

*David Neal, Undergraduate Student*

*Faculty: Philip Buckenmeyer*

**Division III College Athletes Satisfaction with Their Coaches Performance**

*Rory Milcarek, Undergraduate Student*

*Faculty: Katherine M. Polasek*

**Pre-Performance Rituals in Collegiate Rugby Players**

*John Benevento, Undergraduate Student*

*Faculty: Katherine M. Polasek*

**Type of Motivation Influencing Participation in SUNY Cortland's Equestrian Club**

*Danielle Foster, Undergraduate Student*

*Faculty: Katherine M. Polasek*

**Effects of Plyometrics on Lateral Force Development**

*Drew Solomon, Undergraduate Student*

*Faculty: Peter McGinnis*

**Relationships between Body Dissatisfaction and Eating Disorders in Female Athletes in Aesthetic Sports**

*Tracy Page, Undergraduate Student*

*Faculty: Katherine M. Polasek*

**Background Music and Its Effects on Reaction Time**

*Robert Blass, Undergraduate Student*

*Faculty: Joy Hendrick*

**The Effects of Stimulative and Sedative Music on Grip Strength during Performance Tasks**

*Brett Heritage, Undergraduate Student*

*Faculty: Joy Hendrick*

**Distribution of Practice on Cup Stacking Performance**

*Emily Gibbons, Undergraduate Student*

*Faculty: Joy Hendrick, Jeff Bauer*

**The Effects of In Person and Cell Phone Conversation on Multiple Choice Hand Reaction Time and Response Errors**

*Jeremiah Belokur, Undergraduate Student*

*Faculty: Joy Hendrick*

**Knee Bend and Optimal Performance of the Skating Stride in Hockey Players**

*Jeremy Nau, Undergraduate Student*

*Faculty: Jeff Bauer*

**Effects of Caffeine on Recreational Athletes during Repeated Sprints**

*Adam Short, Undergraduate Student*

*Faculty: Philip Buckenmeyer*

**Effects of Plyometric Warm-Up Verses Static Warm-Up in Non-Elite Athletes When Pitching: Measuring Velocity and Accuracy**

*Richard Monaco, Undergraduate Student*

*Faculty: Jeff Bauer*

**Handedness: A Question of Superiority**

*Valerie Batsford, Undergraduate Student*

*Faculty: Joy Hendrick*

**The Effects of Anxiety on Basketball Free Throw Shooting in High Pressure and Low Pressure Environments**

*Danielle Maye, Undergraduate Student*

*Faculty: Katherine M. Polasek*

**Effects of Varying Methods of Muscular Fatigue on Motor Performance**

*Giovanni A. Cappelli, Undergraduate Student*

*Faculty: Jeff Bauer*

**Effects of Aquatic Therapy on College Athletes in Preventing Lower Back Injuries and Increasing Strength and Flexibility**

*Keith Levinson, Undergraduate Student*

*Faculty: Katherine M. Polasek*

**Student Research Projects from 2006-2007**

**Perceived Physical Fitness Levels of College Students**

*Lindsay Wersan, Ryan McKernan, Andrew Haney, Hitomi Oguro, Undergraduate Students*

*Faculty: Philip Buckenmeyer*

**Effect of Textured Insoles on Impact Forces during Running: Alterations in Sensory Feedback**

*Jamie Ross, Margery Holman, Michael Somogyi, Undergraduate Students*

*Faculty: Matthew Moran*

**The Achievement Orientation between Male and Female Intercollegiate Athletes, Intramural Athletes, and Non-Athletes**

*Brian Atkins, Jaclyn Pappas, James VanVoorbis, Dustin Cotcamp, Niko Krommydas, Undergraduate Students*

*Faculty: Katherine Polasek*

**An Investigation of Possible Benefits of a Water-based Exercise Program – Part A**

*Rebecca Osier, Jesse Case, Cody Misener, Undergraduate Students*

*Faculty: Wendy Hurley*

**An Investigation of Possible Benefits of a Water-based Exercise Program – Part B**

*Presenters: Alyssa Bajdas, Jessica VanDerPoel, Michael Dombrowski, Undergraduate Students*

*Faculty: Wendy Hurley*

**Effects of Music Tempo on an Isometric Muscular Endurance Task**

*Robert DePasquale, Chris Wilson, Joe Dietrich, Tamdan McCrory, Undergraduate Students*

*Faculty: Joy L. Hendrick*

**Imagery and Self-Talk: The Effect of Pre-Competitive Psychological Techniques on Anaerobic Swim Performance**

*Andy Chevalier, Sean Clode, James Pioli, Undergraduate Students*

*Faculty: Katherine M. Polasek*

**The Effects of a Plyometric Training Warm-up Versus the Effects of a Traditional Warm-up on a Vertical Jump Test**

*Presenters: Ian Fryer, Bryant Colwell, Michael McGrath, Kelly Hettenbaugh, Undergraduate Students*

*Faculty: Peter McGinnis*

**The Correlation Between Perceived Chronic Ankle Instability and Joint Laxity**

*Presenters: Christopher Wild, Stephanie Varin, Brett Mullen, Undergraduate Students*

*Faculty: Joy L. Hendrick*

**Student Research Projects from 2007-2008**

**The Effects of Pre-Competition Meals on Athletic Performance**

*Presenters: Robert Ellis, Kathryn Green, Michael Higgins, Kenneth Rhuda, Undergraduate Students*

*Faculty: James Hokanson, Wendy L. Hurley*

**Impact of Free Weights and Machines on Strength and Balance**

*Presenters: Dan Ippolito, Bryan Monahan, Undergraduate Students*

*Faculty: Philip Buckenmeyer, Wendy L. Hurley*

**The Effects of Aerobic Exercise versus Strength Training on Perceived Stress Levels**

*Presenters: Katherine Clancy, Ashley Scouten, Kyla Smith, Brittany Kopp, Undergraduate Students*

*Faculty: Katherine Polasek, Wendy L. Hurley,*

**A Comparison of Concentric vs. Deceleration Training on Quadriceps Strength**

*Presenters: Steven Axtell, Valene Parrington, Undergraduate Students*

*Faculty: Peter M. McGinnis, Wendy L. Hurley*

**How Effective is Sodium Bicarbonate Loading?**

*Presenters: Maria Whaley, Travis Womer, Undergraduate Students*

*Faculty: James Hokanson, Wendy L. Hurley*

**How accurate is the Nike iPod Sports Kit?**

*Presenters: Emmanuel Frias, Adam Spizman, Undergraduate Students*

*Faculty: James Hokanson, Matthew Moran*

### **Effect of a Combined Eccentric and Concentric Training Program on Bench Press Performance**

*Presenters: Rich DeJesus, Ken Hoefs, James Mahl, Greg Reardon, Undergraduate Students*

*Faculty: Philip Buckenmeyer, Matthew Moran*

### **Development of a Novel and Reliable Method to Measure Quadriceps Angle**

*Presenters: Matt Richardson, Shawn Scanlon, Ilona Szotyori, Undergraduate Students*

*Faculty: Peter M. McGinnis, Matthew Moran*

### **Effects of Fatigue on Reaction Time in College Wrestlers**

*Presenters: Ashley Naklick, Renée Miller, Branden Green, Undergraduate Students*

*Faculty: Joy Hendrick, Matthew Moran*

### **Effects of Cardiovascular Intensity on Post-Workout Excess Post-Exercise Oxygen Consumption**

*Presenters: Kalli Anctil, Ross Falotico, Jonathan Ortiz, Michelle Penso, Undergraduate Students*

*Faculty: James Hokanson, Matthew Moran*

## **Student Research Projects from 2008-2009**

### **Investigation of Neural Adaptations Due to Resistance and Mental Training**

*Nicholas Lander, Billy Humphries, & Matt Cornell, Undergraduate Students*

*Faculty: Katherine Polasek*

### **Effect of Combined Plyometric Training and Trampoline Training on Vertical Jumping Performance**

*Amaan Siddeeq, John Morris, & Matt Benzoni, Undergraduate Students*

*Faculty: Peter McGinnis*

### **Testing the Physical fitness of Collegiate Women Ice Hockey Players Before and After Pre-Season**

*Katie Montag, Joey Englese, & Olivia Nuzzo, Undergraduate Students*

*Faculty: Philip Buckenmeyer*

### **The Nintendo Wii: A True Source of Physical Activity for Novice and Experienced Players?**

*Nicholas Arnold & Nicholas Longino, Undergraduate Students*

*Faculty: James Hokanson*

### **The Effects of Static or Dynamic Warm-ups on Anaerobic Activity Using the Wingate Test**

*Lindsay Bakker, H. Austin Rhodes, Trish Witter, Undergraduate Students*

*Faculty: Laura Hill*

### **Exercise Performance Related to Time of Day**

*Zachary Bogardus, Jennifer Dennis, Danielle Ferris, Undergraduate Students*

*Faculty: Laura Hill*

**The Effects of Listening to Different Music Genres during a Two-Mile Run**

*Amanda Hickey, Diana Williams, Undergraduate Students*

*Faculty: Laura Hill*

**The Effects of High vs. Low Potassium Diet on Muscle Fatigue among College-Aged Males**

*Crystal Quashie, Haleigh Muka, Jesse Sanna, Undergraduate Students*

*Faculty: Laura Hill*

**Static and Dynamic Warm-Up and Their Effects on Lower Body Force Production**

*Mike Avery, Clark Holdsworth, Lauren Phillips, Undergraduate Students*

*Faculty: Laura Hill*

**The Effects of Internal and External Motivation during a Bicep Curl on College-Aged Men and Women**

*Kyle Bigney, Danielle Ruminski, Undergraduate Students*

*Faculty: Laura Hill*

**Gender Differences in Rating of Perceived Exertion in Distance Runners**

*Kathryn Poe, David Goldenberg, Undergraduate Students*

*Faculty: James Hokanson*

**Assessing Anterior Cruciate Ligament Function Postoperatively During Jumping Tasks**

*Michael Kubn, Nicholas Pulling, Tiffany Grybas, Undergraduate Students*

*Faculty: Jeff Bauer*

**Relationship between Upper Body and Core Muscular Strength and the Velocity of the Ice Hockey Slap Shot**

*Kevin Cuddabee, Zach Dehm, Joe Radich, Undergraduate Students*

*Faculty: James Hokanson*

**Information Processing Demands: Reaction Time While Driving and Performing Secondary Tasks**

*Jennifer Cobb, Zachary Fluster, Greg Leder, Ashley Seaver, Undergraduate Students*

*Faculty: Joy L. Hendrick*

**Reaching New Limits: A Comparison between Elliptical Cross-Trainer and Treadmill Maximal Oxygen Uptake**

*Kristi Kellogg, Amanda Holley, Adah Company, Undergraduate Students*

*Faculty: Philip Buckenmeyer*

**Hopping and Leg Stiffness: Does Aging Affect the Bounce in Your Step?**

*Nicole Dovi, Undergraduate Student*

*Faculty: Peter McGinnis, Professor and James Hokanson*

**The Effects of Exercise on Physical Self-Perception among Cortland College Students**

*Christopher Battaglia, James Garofalo, Joseph Santullo, Undergraduate Students*

*Faculty: Katherine Polasek*

**Gait Analysis among Two Groups of College Students; Using the GAITRite System**

*Lisa Thomas, Jake Howell, Undergraduate Students*

*Faculty: Jeff Bauer*

**Force Generation between the Two and Three-Point Stances in College Football Players**

*Chelsea Backus, Steve Coleman, Sean James, Malorie Manheimer, Hans Wulf, Undergraduate Students*

*Faculty: Jeff Bauer*

**A Comparison of Steady State VO<sub>2</sub> When Comparing Leg and Combined Arm and Leg Work On the Elliptical Cross-Trainer**

*Stefan DiBella, Undergraduate Student*

*Faculty: James Hokanson*

**Student Research Projects from 2009-2010**

**A Comparison of RPE and Caloric Expenditure while Playing the Wii Fit Free Run against Joggin on a Treadmill**

*Mike Abbott, Chris McElroy, & Jessica Ruocco, Undergraduate Students*

*Faculty: James Hokanson, Jeff Bauer*

**Assessment of the Garmin Forerunner 405: Investigating Accuracy and Reliability over Straight and Curved Paths**

*Justin Wager, Leland Wear & Zahara Castillo, Undergraduate Students*

*Faculty: Peter McGinnis, Jeff Bauer*

**The effects of Videogame-Induced Arousal on Exercise Performance**

*Chris Cain, Matt Crawley, Kaitlin Kelby, Jason Turner, Jon Weatherbon, Undergraduate Students*

*Faculty: James Hokanson, Jeff Bauer*

*Spring 2010 research projects will be added in April.*