

JASON WICKE, PhD.

Kinesiology Department / William Paterson University
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Experience – Educational

FULL PROFESSOR – TENURED William Paterson University, Wayne, NJ	2020 – Present
<ul style="list-style-type: none">• Human Motion Lab Director Maintain, operate and conduct laboratories and research Primary equipment/software includes: 20 camera Optitrack system with 2 Bertec Force Plates / 3D Body Scanner / Visual 3D / MatLab	
ASSOCIATE PROFESSOR – TENURED William Paterson University, Wayne, NJ	2016 – 2020
COURSE INSTRUCTOR The Institute for Continuing Education / Fairfield, NJ	2016 – Present
CONSULTANT – PEDIATRIC RESIDENTS St. Joseph's Hospital / Patterson, NJ	2016 – 2018
ASSISTANT PROFESSOR – TENURED William Paterson University, Wayne, NJ	2010 – 2016
ASSISTANT PROFESSOR Texas A&M – Commerce, P.O. Box 3011, Commerce, Texas	2006 – 2010
<ul style="list-style-type: none">• Graduate Program Director• Assistant Graduate Program Director• Human Motion Lab Director• 2 x Teaching Excellence Award (Top 5% - highest award)	2009 – 2010 2007 – 2009 2008 – 2010 2009 & 2010
CROSS COUNTRY & DISTANCE TRACK COACH Texas A&M – Commerce, P.O. Box 3011, Commerce, Texas	2007 – 2008
GRADUATE COURSE INSTRUCTOR Dept. of Human Development, Laurentian University: Sudbury, ON	2003 – 2004
UNDERGRADUATE COURSE INSTRUCTOR Dept. of Human Kinetics, Laurentian University: Sudbury, ON	1997 – 2002
GRADUATE ASSISTANT Queen's University: Kingston, ON & Laurentian University: Sudbury, ON.	1997 – 2006
COURSE INSTRUCTOR / PROGRAM DEVELOPER Canadian Swim Coaches and Teachers Association	2004 – 2006
ASSISTANT HEAD COACH Laurentian Swim Club: Sudbury, ON / Kingston Sharks: Kingston, ON	1998 – 2004

ERGONOMIST
George Weston Inc.: Sudbury, ON 1997 – 2000

Education

Ph.D. (BIOMECHANICS) 2001 – 2006
Queen's University: Kingston, Canada

- Thesis Completion Bursary Award (2006)
- R.S. McLaughlin Fellowship Award (2004 - 2005)
- Queen's Graduate Award (2003 - 2004)
- Principal Wallace Fellowship Award (2002 - 2003)

M.Sc. HONORS (HUMAN DEVELOPMENT) 1997 – 2000
Laurentian University: Sudbury, Canada

- Laurentian University Research Grant (1998 & 2000)

B.Sc. HONORS (KINESIOLOGY) 1991 – 1993, 1995 – 1997
Laurentian University: Sudbury, Canada

- Dean's Honor List - Science and Engineering (93, 95 - 97)

UNDERGRADUATE STUDIES (SPORTS SCIENCE) 1994 – 1995
University of Heidelberg: Heidelberg, Germany

- Ontario - Baden-Württemberg Scholarship recipient (1994 - 1995)

Publications – Refereed

Note: Underlining indicates an undergraduate or graduate student.

Wicke, J., Postma, N., Turner, M. Saddle height preference in relation to comfort among recreational cyclists. Sports Biomechanics (Under review).

Wicke, J., Chianchiano, B., Garner, S., Cola, J. Neuromuscular electric stimulation as an alternative to dynamic warm-up for anaerobic power activities. International Journal of Sports and Exercise Medicine (Accepted for publication).

Garner, S., Wicke, J., Chianchiano, B. (2020). Effects of deceleration-focused exercise strategies on shoulder range of motion and throwing velocity in baseball and softball athletes. Sports Biomechanics, 20(1), 86-95.

Flores-Marti, I., Wicke, J., Hodges, M., Mulrine, C. (2019). Assessing teacher candidates' dispositions. Lecturas: Educación Física y Deportes, 24.

Wicke, J., Flores-Marti, I., Burd, A. (2018). Acute effects of a tempo run on different surfaces. Archives of Physical Health and Sports Medicine, 1, 8-13.

Hodges, M., Wicke, J., Flores-Marti, I. (2018). Effects of the tactical games model on student physical activity levels and gameplay performance. Physical Educator, 15, 99-115.

D'Andrea, J., Wicke, J., Kleber, F. (2017). Foam rolling as a warm-up technique for anaerobic power activities. International Journal of Sports and Exercise Medicine, 3, 1-7.

Keeley, DW., Oliver, GD., Torry, MR., Wicke, J. (2014). Validity of pitch velocity and strike percentage to assess fatigue in young baseball pitchers. *International Journal of Performance Analysis in Sport*, 14, 355-366.

Wicke, J., Gainey, K., Figueroa, M. (2014). A comparison of self-administered proprioceptive neuromuscular facilitation to static stretching on range of motion and flexibility. *Journal of Strength and Conditioning Research*, 28, 168-172.

Wicke, J., Dumas, GA. (2014). A new geometric-based model to accurately estimate arm and leg inertial estimates. *Journal of Biomechanics*, 47, 1869-1876.

Wicke, J., Keeley, DW., Oliver, GD (2013). Comparison of pitching kinematics between youth and adult baseball pitchers: a meta-analytic approach. *Sports Biomechanics*, 12, 315-323.

Figueroa, MA., Wicke, J., Manning, J., Escamilla, P., Santillo, N., Wolkstein, J., Weis, M. (2012). Validation of ACSM metabolic equations in an anti-gravity environment: A pilot study. *International Journal of Applied Science and Technology*: 2(7), 204-210

Keeley, DW., Wicke, J., Alford, EK., Oliver, GD. (2010). A biomechanical analysis of forearm pronation and its relationship to ball movement for the two-seam and four-seam fastball pitches. *Journal of Strength and Conditioning Research*, 24, 2366-2371.

Wicke, J., Dumas, GA. (2010). Influence of the volume and density functions within geometric models for estimating trunk inertia parameters. *Journal of Applied Biomechanics*, 26, 26-31.

Wicke, J., Dumas, GA., Costigan, PA. (2009). A comparison between a new model and current models for estimating trunk segment inertial parameters, *Journal of Biomechanics*, 42, 55-60.

Wicke, J., Dumas, GA., Costigan, PA. (2008). Trunk density profile estimates from dual x-ray absorptiometry. *Journal of Biomechanics*, 41, 861-867.

Wicke, J., Dumas, GA. (2008). Estimating segment inertial parameters using fan-beam DXA. *Journal of Applied Biomechanics*, 24, 180-184.

Wicke, J., Lopers, B. (2003). Validation of the volume function within Jensen's (1978) elliptical cylinder model. *Journal of Applied Biomechanics*, 19, 3-12.

Wicke, J., Jensen, R. K. (2002). A pilot study of a dynamical systems approach to examining changes in static balance of adolescents. *Perceptual and Motor Skills*, 95, 267-278.

Publications – Non-Refereed

Wicke, J. (2003). Assessing freestyle improvement. *Phys. Ed. Digest*, 19, 31-32.

Wicke, J. (2003). Proper pull pattern for faster freestyle swimming. *Phys. Ed. Digest*, 19, 25-27.

Wicke, J. (2003). Drag reduction tips for faster freestyle. *Phys. Ed. Digest*, 19(3), 16-17.

Wicke, J. (2001). A critical analysis of the swim structure in Canada. *Swim News*, 262, 14-15.

Refereed Conferences & Proceedings

Note: Underlining indicates an undergraduate or graduate student.

Wicke, J., Postma, N., Turner, M. (2022). Differences between female and male recreational cyclists on preferred seat height in relation to comfort. In Review for the International Society of Biomechanics Conference: Liverpool, England.

Wicke, J., Robbins, J., Myers, S. (2021). Ground reaction force differences between two forms of squats. Presented at the 28th International Society of Biomechanics Conference: Stockholm, Sweden.

Duncan, A., Wicke, J., Myers, S., Haller, S. (2020). Variations in ground reaction forces between a front and back squat. Abstract accepted to the International Society of Biomechanics Conference: Liverpool, UK. NOTE: Conference postponed until 2022.

Wicke, J., Garner, S., Legreaux, S., Costa, J. (2019). Variations in throwing speed and range of motion between female softball and male baseball players following deceleration-focused shoulder exercises. Presented at the 28th International Society of Biomechanics / 43rd American Society of Biomechanics Conference: Calgary, Canada.

Wicke, J., Duncan, J., Lutas, E. (2018). An exploration of determining optimal seat height in recreational cyclists. Presented at the 8th World Congress of Biomechanics: Dublin, Ireland.

Kalyanam, S., Lesser, E., Wicke, J. (2017). The effects of maternal lullaby on pre-term infants. Presented at the 10th Annual Symposium – Striving for Excellence in Research and Critical Thinking: A Symposium for Pediatric Residence.

Wicke, J., Breeman, K., Abdulla, K., Figueroa, M. (2016). Relationship between anthropometric measures and bicycle seat height in non-cyclists. Manuscript accepted at the 12th annual International Conference on Kinesiology and Exercise Science: Athens, Greece.

Wicke, J., Ynfante, S., Pandorf, M. (2014). Acute effects of surface type on biomechanical parameters of running. Presented at the International Society of Biomechanics in Sport: Johnson City, TN.

Wicke, J., Calleros, A., DiMartino, V. (2013). Trunk inertial estimates of a pregnant female. Manuscript presented at the American Society of Biomechanics Conference: Omaha, NE.

Wicke, J., Dumas, GA. (2012). Inertial estimate errors for female arms and legs from different body models. Presented at the American Society of Biomechanics Conference: Gainesville, FL.

Wicke, J., Keely, DW., Alford, K. (2009). Influence of inertial estimates on elbow joint moments during pitching. Presented at the American Society of Biomechanics Conference: State College, PA.

Keeley, DW., Oliver, GD., Wicke, J. (2009). Kinematic differences in youth baseball pitchers: An investigation into the cocking and acceleration phases. Presented at the American College of Sports Medicine annual conference. Seattle, WA.

Keeley, DW., Oliver, GD., Wicke, J. (2008). Stride phase kinematics in youth baseball pitchers and their relation to overuse injuries. Presented at the Central States Chapter of the American College of Sports Medicine Annual Conference. Kansas City, MO.

Keeley, DW., Wicke, J., Alford, EK. (2008). Upper body pitching kinematics and their effect on the movement of two fastball pitches. Presented at the Southern California Conference on Biomechanics. Thousand Oaks, CA.

Wicke, J., Dumas, G.A (2007). A new trunk volume representation for geometric body segments models. Presented at the American Biomechanics Society Conference – Stanford University, California.

Wicke, J., Dumas, G.A., Costigan, P.A. (2007). Trunk Density Profile Estimates From Dual X-Ray Absorptiometry. Presented at the Human Machine Interaction Conference: Timimoun, France.

Wicke, J. (2006). Estimation of Segment Inertial Parameters. Presented at the Ontario Biomechanics Conference: Barrie, Ontario.

Grants

Faculty Research Incentive Program (\$2,000) – funded	May, 2022
MLB: Youth Development Foundation (\$19,460) – not funded Biomechanics through Baseball. PI: Jason Wicke	February, 2022
National Recreation and Parks Association (\$24,720) – funded Batter Up. PI: Nancy Norris-Bauer	January, 2020
National Institute of Health R21 Grant (\$259,866) – not funded An accurate assessment of body segment parameter changes during pregnancy.	April, 2017
National Institute of Health R03 Grant (\$100,000) – not funded Resubmitted: March, 2015 – Scored / First submission: November, 2014 – Scored. An accurate assessment of segment inertial parameter changes during pregnancy.	March, 2015
TAMU-C Integrative Research Grant (\$30,000) – funded Evaluation and implementation of an education program for the psychosocial and physical parameters causing slips, trips and falls in rural elderly.	September, 2010
TAMU-C Graduate Research Grant (\$7000) – funded Motion analysis outcomes using different geometric models.	September, 2007
TAMU-C Mini Grant of (\$600) – funded The development trunk density profiles for a new biomechanical body model.	December, 2006
Federal Initiative Grant (\$2.5 Million) – not funded Development of an injury prevention program for southern rural communities.	November, 2009
National Institute of Health R15 Grant (\$300,000) – not funded The refinement of the volume functions within a newly developed geometric body model.	October, 2009
National Institute of Health R03 Grant (\$200,000) – not funded Sensitivity analysis on a new geometric model	October, 2008

Professional Associations & Honorariums

- Reviewer for Journal of Biomechanics – Tier 1 International Journal
- Reviewer for Sports Biomechanics – Tier 1 International Journal

- Reviewer for Journal of Sports Science and Medicine
- Reviewer for Journal of Sports Medicine
- Reviewer for American Society of Biomechanics Conference
- American Biomechanics Society – Current Member
- International Society of Biomechanics – Current Member
- International Society of Sport Biomechanics – Current Member
- Texas Association of Physical Education, Recreation and Dance (until 2010)
- Canadian Swim Coaches and Teachers Association – Level III Swim Coach Certified

Student Research Advising

William Paterson University:

Advisor to Joseph Robbins – Graduate Thesis (2020 – 2021).
Effects of Jogging with a Hydration Pack on Ground Reaction Forces.

Advisor to Anthony Duncan – Graduate Thesis (2019 – 2020).
A Biomechanical Analysis of Different Squatting Methods.

Co-advisor to Kiera White – Honors Thesis (2019 – 2020).
Gait Patterns in Relation to Leg Length Discrepancies: A Randomized Control Study.

Advisor to Joseph Duncan – Graduate Thesis (2018 – 2019).
Effects of Foam Rolling on the Kinetics of Vertical Jumping.

Advisor to Alex Geleski – Graduate Thesis (2018 – 2019).
Biomechanical Variations in Throwing Weighted Balls.

Advisor to Sara Garner – Graduate Thesis (2017 – 2018).
Deceleration-Focused Shoulder Rehabilitative Strategies in Baseball and Softball Athletes.

Advisor to Ben Chianchiano – Graduate Thesis (2017 – 2018).
Electric Stimulation as an Alternative to Dynamic Warm-up.

Advisor to Danielle Veltri – Graduate Thesis (2016 – 2017).
Effects of an Inversion Table on Running and the Lower Back.

Advisor to Jamie D’Andrea – Graduate Thesis (2015 – 2016).
Foam Rolling as a Warm-up Technique for Anaerobic Power Activities.

Advisor to Francis Kleber – Graduate Thesis (2015 – 2016).
Active versus Passive Warm-Up after Cryotherapy.

Advisor to Mike Cox – Graduate Thesis (2013 – 2014).
Effects of Proprioceptive Neuromuscular Facilitation on Power Output.

Advisor to Rob Boutote – Graduate Thesis (2013 – 2014).
Assessment of Shoulder Subluxation in Pitchers.

Advisor to James Toppeta – Graduate Thesis (2012 – 2013).
Dynamic versus Static Stretching during Warm-up on Fourth-Grade Fitness Outcomes.

Advisor to Heather Procopio – Graduate Thesis (2011 – 2012)

A Comparison of Different Methods of Restricting Ankle ROM during Exercise.

Advisor to Kamar Gainey – Undergraduate Research Study (2010 – 2012)
Active PNF as a Replacement for Static Stretching to Increase ROM.
Submitted \$1600 undergraduate research grant (Oct, 2010)

Texas A&M University – Commerce:

Advisor for Karen Prisby's – Graduate Thesis (2009 – 2010)
Ground Reaction Force Variations after Grass versus Asphalt Running.

Advisor for Lulu Wu's – Graduate Thesis (2009 – 2010)
Physiological Indices for Half-Ironman Triathlon Racing.

Advisor for Kerri Johnson's – Honors Thesis (2008 – 2009)
Relationship between Non-Organized Exercise and Obesity in Youth.

Advisor for Kendra Patterson's – Honors Thesis (2009 – 2010)
Comparison between Static and Proprioceptive Neuromuscular Facilitation Stretching.

Advisor for Michael William's – Honors Thesis (2009 – 2010)
Periodization of a Men's College Basketball Program.

Courses Taught

William Paterson University

Graduate: Thesis
Interdisciplinary Studies
Applied Kinesiology and Biomechanics – with Lab
Research Methods and Design
Introduction to Research

Undergraduate: Motor Learning – with Lab (hybrid)
Biomechanics – with Lab (in-class/hybrid/online)
Tests & Measurements – Lab (in-class/hybrid/online)
Motion Analysis – Biomechanics for PE majors (hybrid/online)
Introduction to Kinesiology (in-class)
Swimming and Conditioning (Physical Education skills course)
Track and Field (Physical Education skills course)

Texas A&M – Commerce

Graduate: Statistics (online course)
Sports Conditioning (web enhanced)
Biomechanics – with Lab
Critiquing & Conduction Research (web enhanced)
Teaching Design, Strategies & Assessment

Undergraduate: Exercise Physiology with Lab
Concepts of Physical Education
Kinesiology (Anatomy) with Lab
Statistics (Measurement & Evaluation)

Laurentian University

Graduate: Theoretical Prospective in Human Development

Undergraduate: Human Movement
Aquatics (Activity Course)

PROFESSIONAL SERVICE

Community:

Representative for WP at 'Heathy Kids Day – Wyckoff'	2013 – 2019
Featured on NJTV news for baseball study research	2014
Featured on national radio for baseball study research	2014
Volunteer at Patterson elementary schools	2013

Campus Wide:

University Faculty Range Adjustment Committee	2021-2022
Faculty Athletic Representative	2017 – present
Faculty Athletic Support Team: Advisory Board Member	2014 – present
Faculty Career Development Committee	Spring, 2021
Faculty Range Adjustment Committee	Spring, 2018
Faculty Senate	2013 – 2017
Faculty Senate Executive Member (At Large)	2015 – 2017
Developed Title IX PPT for all faculty for presenting to students each semester.	
Chair of Administration Evaluations Committee	2014 – 2015
Student Organization Advisor:	
• Pioneer Distance Running Club	2015
• Society of Leadership and Success	2012 – 2013
• Filipino-American Culture Entity	2012 – 2013

Department:

New Courses Developed:

- | | |
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| • KNES 2100 – Computer Skills for the Sports and Health Fields | 2016 |
| • KNES 2200 – Motion Analysis | 2016 |

UCC Attribute courses developed for Technology Intensive:

- | | |
|-------------------------------------|------|
| • KNES 2300 – Tests and Measurement | 2016 |
| • KNES 3300 – Biomechanics | 2016 |

Online courses developed:

- | | |
|-------------------------------------|--|
| • KNES 2300 – Tests and Measurement | |
| • KNES 3300 – Biomechanics | |

Student advisor for on average 45 students per semester for three programs:

- | | |
|------------------------|----------------|
| • Sport Administration | 2018 – present |
| • Exercise Science | 2010 – present |
| • Physical Education | 2012 – 2019 |

Search committee member for several positions

Faculty retention committee member

2010 – present

Member and chair for several departmental committees

2010 – present

Initiated a plagiarism procedure for department

2012

Statistical advisor for several faculty publications

2010 – present