

Joshua Dexheimer, PhD, CSCS, PES

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Education

2013	B.A.	Exercise Science	Point Loma Nazarene University, San Diego CA
2014	M.S.	Biokinesiology	University of Southern California, Los Angeles CA
2018	PhD	Human Performance	Concordia University Chicago, River Forest IL

Academic Appointments

Aug. 18-present

Assistant Professor of Kinesiology, Department of Kinesiology, Azusa Pacific University

Courses

- *KIN 363 Physiology of Exercise + Lab*
- *KIN 102 Foundations of Kinesiology*
- *KIN 490 Research Methods in Kinesiology*
- *FFL 131 Fit for Life*
- *PE 496 Senior Seminar: Ethics in Physical Education and Sport*

Aug. 19-present

Adjunct Faculty, Department of Biokinesiology and Physical Therapy, University of Southern California

Courses

- *PT 509 Cellular and Systems Physiology (residential/hybrid-online)*
- *PT 549L Clinical Exercise Physiology (hybrid-online immersion lab)*

Aug. 19-present

Adjunct Professor of Exercise Science, Department of Allied Health Professions, Liberty University

Courses

- *EXSC 510 Advanced Exercise Physiology (online)*

Aug. 19-present

Adjunct Professor of Kinesiology, Department of Kinesiology, California Baptist University

Courses

- *KIN 490 Principles of Conditioning Athletes (online)*
- *KIN 274 Applied Movement Anatomy (online)*

Aug. 15-Aug. 18

Part-Time Professor of Kinesiology, Department of Kinesiology, Point Loma Nazarene University

Courses

- *PED 100 Fitness Through Movement*
- *PED 100 Fitness Through Movement Online (Course Creator and Instructor)*
- *BIO 140L Anatomy and Physiology Lab*
- *PED 200 Optimal Health*
- *EXS 370 Praxis of Strength and Conditioning*

- *KIN 340 Exercise Physiology*
- *KIN 340L Exercise Physiology Lab*
- *KIN 325 Structural Kinesiology*
- *KIN 327 Applied Biomechanics*
- *KIN 488 Internship in Kinesiology*
- *KIN 650 Research Project Seminar in Kinesiology (Hybrid)*
- *KIN 660 Directed Readings (Hybrid)*
- *KIN 688 Internship/Practicum in Kinesiology (Hybrid)*

Jan. 16-Aug. 18

Adjunct Professor of Kinesiology, Department of Kinesiology, Saint Katherine University

Courses

- *KN 300 Experiments in Exercise and Sports Performance*
- *KN 370 Physical Activity in Youth and Adolescents*
- *KIN 240 Exercise Physiology + Lab*
- *KIN 340 Principles of Health Promotion*
- *KIN 350 Measurement and Evaluation in Kinesiology*

Jan. 18-May 18

Part-Time Lecturer, Department of Exercise and Nutritional Sciences, San Diego State University

Courses

- *ENS 307 Motor Learning and Performance (Creator/Instructor for Hybrid Format)*

Thesis and Dissertation

Dissertation: Physiological Performance Measures as Indicators of CrossFit® Performance

Thesis: AlterG Treadmill Rehabilitation in Knee Replacement Patients

Publications(Peer Reviewed)

(Senior Author is underlined)

1. Zeitz EK, Cook LF, **Dexheimer JD**, Lemez S, Leyva WD, Terbi IY, Tran JR, Jo E. The Relationship Between CrossFit® Performance and Laboratory-Based Measurements of Fitness. Sports – In Review
 2. **Dexheimer JD**, Schroeder ET, Sawyer BJ, Pettitt RW, Torrence WA. (2020) Total Body Strength Predicts Workout Performance in a Competitive Fitness Weightlifting Workout. Journal of Exercise Physiology Online – In Press August 2020.
 3. **Dexheimer JD**. (2019) Further Defining High-Intensity, Multimodal Exercises, and Functional Training as Part of the Working Definition for High-Intensity Functional Training. Research Investigations in Sports Medicine 5(1).
 4. **Dexheimer JD**, Schroeder ET, Sawyer BJ, Pettitt RW, Aguinaldo AL, Torrence WA. (2019) Physiological Performance Measures as Indicators of CrossFit® Performance. Sports, 7(4), 93.
 5. Nigolian L, Gantioque R, **Dexheimer JD**. (2019) Palliative Care in Emergency Medicine. What Are We Missing? Open Journal of Emergency Medicine, 7, 8-15.
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Publications in Progress

(* indicates a student or former student under Dr. Dexheimer's supervision; Senior Author is underlined)

1. Brinson S*, Pettitt RW, Schroeder ET, Sawyer BJ, Jo E, Dexheimer JD. Predicting Maximal Oxygen Uptake from a 3-Minute All-Out Testing in High- Intensity Functional Training Athletes. Sports.
2. Wolff L*, Svean R*, Pettitt RW, Schroeder ET, Sawyer BJ, Dexheimer JD. Anthropometric Measurements as Indicators of Performance on High-Intensity Functional Training Workouts. International Journal of Exercise Science.
3. Heredia A*, Pettitt RW, Dexheimer JD. Predicting Running Times in 1500m, 3000m and 5000m Races. Southwest American College of Sports Medicine Annual Meeting 2018.
4. Capello KM, Wolff L*, Schroeder ET, Sawyer BJ, Dexheimer JD. Physiological and/or Anthropometric Variables as Indicators of High Intensity Functional Training Performance. International Journal of Exercise Science.
5. Dexheimer JD, Beamish J*, Pettitt RW, Schroeder ET, Sawyer BJ. The Effects of Music Tempo on Perceived Exertion and Motivation to High-Intensity Functional Training. International Journal of Exercise Science.

Published Abstracts and Conference Presentations (Peer Reviewed)

(* indicates a student or former student under Dr. Dexheimer's supervision; Senior Author is underlined)

1. Capello KM*, Wolff L*, Kantor MA, Pettitt RW, Dexheimer JD. Using the Critical Speed Concept to Improve Pacing Strategy and 5K Performance in Distance Runners: Two Case Studies. National Strength and Conditioning Association National Conference 2020.
2. Wolff L*, Capello KM*, Kantor MA, Pettitt RW, Dexheimer JD. Muscle Oxygen Saturation and Heart Rate Responses to High-Intensity Interval Training During Running and Cycling: Two Case Studies. National Strength and Conditioning Association National Conference 2020.
3. Martinho HK*, Wolff L*, Capello KM*, Kantor MA, Pettitt RW, Dexheimer JD. The Relationship Between Metabolic Rate, Heart Rate, and Muscle Oxygen Saturation During Running and Cycling: Three Case Studies. National Strength and Conditioning Association National Conference 2020.
4. Pettitt RW, Pettitt CD, Fretti SK, Kantor MA, Dexheimer JD, Dicks ND, Kramer M. Expedited Protocol for the Bottle Buoyancy Method of Body Composition Assessment. National Strength and Conditioning Association National Conference 2020.
5. Wolff L*, Dexheimer JD. Physiological and/or Anthropometric Variables as Indicators of High Intensity Functional Training Performance. Southwest American College of Sports Medicine Annual Meeting 2019.
6. Capello KM*, Wolff L*, Dexheimer JD. The Predictive Capacity of Fatigue-Related Thresholds on High-Intensity Functional Training Performance is Dependent on the Physiological Demands of the Workouts. Southwest American College of Sports Medicine Annual Meeting 2019.

7. Nyberg J*, Wolff L*, **Dexheimer JD**. Total Body Strength as an Indicator of Weightlifting Performance in a High-Intensity Functional Training Workout. Southwest American College of Sports Medicine Annual Meeting 2019.
8. Kasali JC*, Ogan HJ*, Wolff L*, **Dexheimer JD**. Does Anaerobic Performance Predict Time-to-Completion on High-Intensity Functional Training Workouts? Southwest American College of Sports Medicine Annual Meeting 2019.
9. **Dexheimer JD**. Physiological Indicators of CrossFit Sport Performance. Oral Presentation at Second Global Congress on Sport and Christianity 2019.
10. Tappero JD*, **Dexheimer JD**. The Relationships Between Speeds at Fatigue Related Thresholds and How To Improve Running Performance. Oral Presentation at Second Global Congress on Sport and Christianity 2019.
11. Capello KM*, Tappero JD*, Pettitt RW, **Dexheimer JD**. The Relationships Between Critical Speed, Respiratory Compensation Point, Ventilation Threshold, and Gas Exchange Threshold. National Strength and Conditioning Association National Conference 2019.
12. Carabes CM*, Pettitt RW, Aguinaldo AL, **Dexheimer JD**. Body Composition as an Indicator of Aerobic and Anaerobic Performance. National Strength and Conditioning Association National Conference 2019.
13. Bernard HM*, Pettitt RW, Aguinaldo AL, **Dexheimer JD**. Lower Limb Strength as an Indicator of Anaerobic and Aerobic Performance. National Strength and Conditioning Association National Conference 2019.
14. Wolff L*, Svean R*, Pettitt RW, Aguinaldo AL, **Dexheimer JD**. Anthropometric Measurements as Indicators of Performance on High-Intensity Functional Training Workouts. National Strength and Conditioning Association National Conference 2019.
15. Zaghoul MS*, Beamish J*, Pettitt RW, **Dexheimer JD**. The Effects of Music Tempo on Perceived Exertion and Motivation to High-Intensity Functional Training. National Strength and Conditioning Association National Conference 2019.
16. Brinson S*, Pettitt RW, **Dexheimer JD**. Predicting Maximal Oxygen Uptake from a 3-Minute All-Out Testing in CrossFit Athletes. Southwest American College of Sports Medicine Annual Meeting 2018.
17. Heredia A*, Pettitt RW, **Dexheimer JD**. Predicting Running Times in 1500m, 3000m and 5000m Races. Southwest American College of Sports Medicine Annual Meeting 2018.
18. **Dexheimer JD**, Orozco SP, Wu B, Sum J, Gilbert PK, Vallejo A, Schroeder ET. Antigravity treadmill walking in acute rehabilitation of total and partial knee replacement patients. American College of Sports Medicine Annual Meeting, Med Sci Sports Exerc 46(5)S, 2015.

1. 2018: *Graduate Capstone Project*, Ryan Svean, “Anthropometric Measurements the Relationship to Crossfit Performance”
2. 2018: *Graduate Capstone Project*, Anthony Heredia, “Using a 3MT Running Test to Predict Distance Running Performance”
3. 2018: *Graduate Capstone Project*, Shane Brinson, “The Association Between a 3MT Running Test and VO_{2max} in Competitive Runners”
4. 2018: *Graduate Capstone Project*, Jamie Beamish, “Musical Effects on the Influence of Crossfit Performance”
5. 2018: *Undergraduate Honors Project*, Morgan Brandt, “Efficacy of Methods for Detecting Overtraining in College Athletes”
6. 2017: *Graduate Capstone Project*, TJ Guzman, “The Effect of Massage on Handgrip Performance of Novice Climbers”
7. 2017: *Graduate Capstone Project*, Lisa Saunders, “The Effects of Core and Hip Exercises on Symptoms and Quality of Life in Pregnant Females”
8. 2017: *Graduate Capstone Project*, Vicente Andrade and Tyler Kradas, “The Effects of Power Rack Training vs Water Resistance Training in High School Swimmers on Swim Performance and Land Power”
9. 2016: *Graduate Capstone Project*, Alana Michels, “Progressive Resistance Training Effects on Skeletal Muscle Strength and Hypertrophy with NSAID Consumption”

Lay Articles (Non-Peer Reviewed)

1. How Do Muscles Contract? Type I and Type II Fibers. PowerDot Blog. Published Online (2/18/19). <https://www.powerdot.com/blogs/training/how-do-muscles-contrast-type-i-and-type-ii-muscle-fibers>
2. “Open Ready!” Physiological Indicators of Workout Performance. PowerDot Blog. Published Online (3/18/19). <https://www.powerdot.com/blogs/training/open-ready-physiological-indicators-of-workout-performance>
3. Weightlifting and Cardio... Which One First? PowerDot Blog. Published Online (4/9/19). <https://www.powerdot.com/blogs/training/lifting-weights-and-cardio-which-one-first>
4. Is Your Posture the Reason for Your Discomfort? PowerDot Blog. Published Online (4/17/19). <https://www.powerdot.com/blogs/training/is-your-posture-the-reason-for-your-discomfort>

5. The Ins and Outs of High-Intensity Functional Training. PowerDot Blog. Published Online (4/30/19). <https://www.powerdot.com/blogs/training/the-ins-and-outs-of-high-intensity-functional-training>
6. The Science Behind Shape and Human Performance. PowerDot Blog. Published Online (5/22/19). <https://www.powerdot.com/blogs/training/39-the-science-behind-shape-and-human-performance>
7. The Physiology of Anaerobic and Aerobic Athletes. PowerDot Blog. Published Online (6/24/19). <https://www.powerdot.com/blogs/training/the-physiology-of-anaerobic-and-aerobic-athletes>
8. Cycling Power is Critical. PowerDot Blog. Published Online (7/8/19). <https://www.powerdot.com/blogs/training/cycling-power-is-critical>
9. How Cyclists Can Train with PowerDot to Enhance Aerobic Capacity. PowerDot Blog. Published Online (7/15/19). <https://www.powerdot.com/blogs/training/cyclist-training>
10. Increased Power Output with Post-Activation Potentiation. PowerDot Blog. Published Online (8/5/19). <https://www.powerdot.com/blogs/training/power-output>
11. Physiology of PowerDot Smart TENS and Pain. PowerDot Blog. Published Online (9/19/19). <https://www.powerdot.com/blogs/training/smart-tens-and-pain>
12. Open Ready Part 2: How to Train for the Open. PowerDot Blog. Published Online (10/4/19). <https://www.powerdot.com/blogs/training/open-ready-part-2>
13. Move Pain Free... Even with Arthritis. PowerDot Blog. Published Online (10/25/19). <https://www.powerdot.com/blogs/training/arthritis-pain-relief>
14. Improve Movement and Decrease Pain. PowerDot Blog. Published Online (11/13/19). <https://www.powerdot.com/blogs/training/improve-movement-and-decrease-pain>
15. Training for Mixed-Martial Arts with PowerDot. PowerDot Blog. Published Online (12/20/19). <https://www.powerdot.com/blogs/training/mma-training-with-powerdot>
16. Avoiding Overtraining Syndrome and Enhancing Performance. PowerDot Blog. Published Online (1/2/20). <https://www.powerdot.com/blogs/training/overtraining>
17. How to Reduce Arm Pump for Motocross. PowerDot Blog. Published Online (1/14/20). <https://www.powerdot.com/blogs/training/reduce-arm-pump-for-motocross>

Grants and Other Funding

2019 – Faculty Research Grant. (requested \$9,635; funded \$9,635): Reliability and Validity of the PNOE Portable Metabolic Measurement System

2019 – Faculty Research Grant. (requested \$5,515; funded \$5,515): Using the 3-minute all-out test to Inform and Improve 5k Race Times.

2019 – Publication Assistance Grant. (requested \$528; funded \$528): Further Defining High-Intensity, Multimodal Exercises, and Functional Training as Part of the Working Definition for High-Intensity Functional Training

2019 – Publication Assistance Grant. (requested \$348.93; funded \$348.93): Physiological Performance Measures as Indicators of CrossFit® Performance.

Student Grants and Funding

2019 – Travel Grant. Kristi M. Capello. (requested \$500; funded \$500): Travel to and present at National Strength and Conditioning National Conference, Washington D.C.. July 2019.

2019 – Travel Grant. Hayley M. Bernard. (requested \$500; funded \$500): Travel to and present at National Strength and Conditioning National Conference, Washington D.C.. July 2019.

2019 – Travel Grant. Cindy M Carabes. (requested \$500; funded \$500): Travel to and present at National Strength and Conditioning National Conference, Washington D.C.. July 2019.

2019 – Travel Grant. Martina S. Zaghoul. (requested \$500; funded \$500): Travel to and present at National Strength and Conditioning National Conference, Washington D.C.. July 2019.

2019 – Travel Grant. Leah Wolff. (requested \$500; funded \$500): Travel to and present at National Strength and Conditioning National Conference, Washington D.C.. July 2019.

2019 – Travel Grant. Jackson D. Tappero. (requested \$500; funded \$500): Travel to and present at Second Global Congress on Sport and Christianity, Grand Rapids, Michigan. October 2019.

Journal Reviewer

PLoS One, Human Kinetics, MDPI

Private Industry Research Experience

Exercise Scientist and Content Expert at PowerDot

Jan. 19 to Current

- Conduct biomechanical and physiological analysis of athletes to quantify movement and performance.
- Media content creation related to recovery/rehabilitation and sport performance.

Health and Wellness Devices Research Assistant at Higi SH LLC

Jan. 14 to Aug. 14

- Perform clinical research and validation studies in accordance with the International Organization for Standardization, evaluating all health and wellness devices for consumer use.
- Provide statistical analysis and generate reports to present to the company by specified deadlines.

Certifications and Leadership

Institutional Review Board (IRB) – Azusa Pacific University

Human Performance Lab Manager – Azusa Pacific University

Program Director of Educationally Recognized Program through the National Strength and Conditioning Association – Point Loma Nazarene University

Certified Strength and Conditioning Specialist, CSCS National Strength and Conditioning Assc.

Performance Enhancement Specialist, PES National Academy of Sports Medicine

CPR/AED, American Red Cross

Masters Student Representative, USC Biokinesiology Student Council

Baseball Representative, PLNU NCAA Student Athlete Advisory Committee