

DAVID J. SZYMANSKI



Courses Taught:

KINE 408: Physiology of Exercise
KINE 418: Strength Training & Conditioning
KINE 536: Physiology of Exercise II
KINE 546: Theory & Methodology of Resistance Training

Educational Credentials:

Doctorate of Philosophy	Auburn University; Auburn, AL (Exercise Physiology), 2004
Masters of Education	Texas State University; San Marcos, TX (Sports Management), 1995
Bachelor of Arts	Texas Lutheran University; Seguin, TX (Kinesiology), 1993
Bachelor of Arts	Texas Lutheran University; Seguin, TX (Fine Art), 1989
Associate of Arts	College of DuPage; Glen Ellyn, IL (Commercial Art), 1987

Teaching Experience:

Professor	Louisiana Tech University, 2015-present
Associate Professor	Louisiana Tech University, 2010-2015
Assistant Professor	Louisiana Tech University, 2005-2010

Professional Experience:

Department Chair (Kinesiology)	Louisiana Tech University, 2018-present
Director of Baseball Performance	Louisiana Tech University, 2020-present
Interim Department Chair (Kinesiology)	Louisiana Tech University, 2017-2018
Associate Department Chair (Kinesiology)	Louisiana Tech University, 2015-2016
Head Baseball Strength & Conditioning Coach	Louisiana Tech University, 2006-2014

Selected Publications:

1. Martinez-Rodriguez, JA, Croatin, RL, and **Szymanski, DJ**. Introduction to an advanced change of direction test in baseball and softball: The curvilinear ability test. PAP August 9, 2023. *Strength and Conditioning Journal*. XX(X): 000-000, 2023.
2. Lis, R, **Szymanski, DJ**, Qiao, M, and Croatin, RL. Exploratory investigation into the impact of bilateral and unilateral jump characteristics on ground reaction force applications in baseball pitching. PAP June 30, 2023. *Journal of Strength and Conditioning Research*. XX(X): 000-000, 2023.
3. Sakurai, M, **Szymanski, DJ**, Qiao, M, and Croatin, RL. Combined countermovement jump testing and motion analysis as the future of performance assessment for baseball pitchers: a narrative review. PAP February 7, 2023. *Journal of Strength and Conditioning Research*. XX(X): 000-000, 2023.
4. Croatin, RL, Conforti, CM, **Szymanski, DJ**, and Oseguera, J. Anthropometric evaluation of first round draft selections in Major League Baseball. *Journal of Strength and Conditioning Research*. 37(8): 1609-1615, 2023.
5. Gills, JL, Spliker, B, Glenn, JM, **Szymanski, D**, Romer, B, Lu, H, and Gray, M. Acute citrulline-malate supplementation increases total work in short lower-body isokinetic tasks for recreationally active females during menstruation. Published Ahead of Print July 26, 2021 to the *Journal of Strength and Conditioning Research*. 37(6): 1225-1230, 2023.
6. Sato, K, Light, TJ, Abbott, J, Painter, K, Gentles, J, Bazylar, C, and **Szymanski, D**. Load-velocity relationships in the back squat: the influence of relative strength. *Journal of Sports Performance*. 8(1): 1-12, 2021.
7. Donahue, PT, **Szymanski, DJ**, and Wilson, S. Association of anthropometrics and physical performance measures to

golf-specific variables in collegiate male golfers. December 14, 2020. *Journal of Sports Medicine and Physical Fitness* DOI: 10.23736/S0022-4707.20.11488-9.

8. Gleason, BH, Bellon, CR, and **Szymanski, DJ**. Practitioner-driven recommendations for the professional evaluation of the strength and conditioning coach. *Strength and Conditioning Journal*. 42(2): 82-94, 2020.
9. Hornsby, G, Gleason, B, Wathen, D, Deweese, B, Stone, M, Pierce, K, Wagle, J, **Szymanski, DJ**, and Stone, MH. Servant or service? The problem and a conceptual solution. *Journal of Intercollegiate Sport*. 10: 228-243. 2017.
10. Bishop, S, **Szymanski, DJ**, Ryan, GA, Herron, RL, and Bishop, PA. The effect of intermittent vest cooling on thermoregulation and cardiovascular strain in baseball catchers. *Journal of Strength and Conditioning Research*. 31(8): 2060-2065. 2017.
11. **Szymanski, DJ**. Consideration of sports vision training for baseball hitters. *NSCA Coach*. 2(3): 4-7. 2015.
12. Warren, CD, **Szymanski, DJ**, and Landers, MR. Effects of three recovery protocols on range of motion, heart rate, rating of perceived exertion, and blood lactate in baseball pitchers during a simulated game. *Journal of Strength and Conditioning Research*. 29(11): 3016-3025. 2015.
13. **Szymanski, DJ**. Preseason training for youth baseball players. *Strength and Conditioning Journal*. 35(3): 63-76. 2013.
14. **Szymanski, DJ**. Effects of various resistance training methods on overhand throwing power athletes: A brief review. *Strength and Conditioning Journal*. 34(6): 61-74. 2012.
15. Wilson, JM, Miller, AL, **Szymanski, DJ**, Duncan, NM, Andersen, JC, Alcantara, ZG, Morrison, TJ, and Bergman, CJ. Effects of various warm-up devices and rest period lengths on batting velocity and acceleration of intercollegiate baseball players. *Journal of Strength and Conditioning Research*. 26(9): 2317-2323. 2012.
16. **Szymanski, DJ**, Bassett, KE, Beiser, EJ, Till, ME, Medlin, GL, Beam, JR, and DeRenne, C. Effect of various warm-up devices on bat velocity of intercollegiate softball players. *Journal of Strength and Conditioning Research*. 26(1): 199-205. 2012.
17. **Szymanski, DJ**. Resistance training to avoid little league elbow and shoulder. *NSCA's Performance Training Journal*. 10(2): 15-20. 2011.
18. **Szymanski, DJ**, Beiser, EJ, Bassett, KE, Till, ME, Medlin, GL, Beam, JR, and DeRenne, C. Effect of various warm-up devices on bat velocity of intercollegiate baseball players. *Journal of Strength and Conditioning Research*. 25(2): 287-292. 2011.
19. **Szymanski, DJ** and DeRenne, C. The effects of small muscle training on baseball hitting performance: A brief review. *Strength and Conditioning Journal*. 32(6): 99-108. 2010.
20. Beam, JR and **Szymanski, DJ**. Validity of two skinfold calipers in estimating percent body fat of college-aged men and women. *Journal of Strength and Conditioning Research*. 24(12): 3448-3456. 2010.
21. **Szymanski, DJ**, Szymanski, JM, Schade, RL, Bradford, TJ, McIntyre, JS, DeRenne, C, and Madsen, NH. The relation between anthropometric and physiological variables and linear bat swing velocity of high school baseball players before and after 12 weeks of training. *Journal of Strength and Conditioning Research*. 24(11): 2933-2943. 2010.
22. **Szymanski, DJ**. General, special, and specific core training for baseball players. *NSCA's Performance Training Journal*. 9(5): 13-16. 2010.

Book:

1. Coleman, AE and **Szymanski, DJ**. Co-editors. *Strength Training of Baseball*. Human Kinetics, Champaign, IL. 2022.

Book Chapter:

1. **Szymanski, DJ**. Baseball and Softball. In: *Developing the Core*. Human Kinetics, Champaign, IL. pp. 133-140. 2023.
2. **Szymanski, DJ**. Introduction. In: *Strength Training of Baseball*. Human Kinetics, Champaign, IL. 2022. viii-x.
3. **Szymanski, DJ** and Lawson, B. Importance of resistance training. In: *Strength Training of Baseball*. Human Kinetics, Champaign, IL. 2022.
4. **Szymanski, DJ** and Vazquez, J. Testing protocols and athlete assessment. In: *Strength Training of Baseball*. Human Kinetics, Champaign, IL. 2022.
5. **Szymanski, DJ**. Baseball and Softball. In: *Developing the Core*. Human Kinetics, Champaign, IL. pp. 133-140. 2014.

Selected Abstracts:

1. **Szymanski, D**, Qiao, M, Szymanski, J, and Crotin, R. Relationships between lower body power and fastball velocities amongst collegiate baseball pitchers. *Journal of Strength and Conditioning Research*. 37(3): e209, 2023.
2. Fish, M, **Szymanski, D**, Crotin, R, Singh, V, and Szymanski, J. Anthropometric and physical performance relationships to fastball velocities in collegiate baseball pitchers. *Journal of Strength and Conditioning Research*. 37(3): e200-201, 2023.
3. Qiao, M, Crotin, R, **Szymanski, D**, Singh, V, and Szymanski, J. Differences in jump characteristics related to elbow varus torque among Division I collegiate pitchers. *Journal of Strength and Conditioning Research*. 37(3): e242-243, 2023.
4. **Szymanski, DJ**, Garcia, AS, and Qiao, M. Relationship of pinch and grip strengths on velocity and spin variables of different pitch types by collegiate baseball pitchers. *Journal of Strength and Conditioning Research*. 35(12): e329-330, 2022.
5. **Szymanski, DJ**, Szymanski, JM, Ortiz, PA, Cloud, DM, and Crotin, RL. Relationship between stature, body composition, and absolute and relative strength and power to fastball velocity among collegiate baseball pitchers. *Journal of Strength and Conditioning Research*. 35(12): e369-370, 2022.
6. Sakurai, M, Qiao, M, **Szymanski, DJ**, and Crotin, RL. Relationship between kinetics of countermovement jump and trunk mechanics of collegiate baseball pitching. *Journal of Strength and Conditioning Research*. 35(12): e313-314, 2022.
7. Kaplan, CA, **Szymanski, DJ**, and Graves, BS. Acute effect of ankle joint mobilization on hamstring flexibility. *Journal of Strength and Conditioning Research*. 35(12): e371-372, 2022.
8. **Szymanski, D**, Qiao, M, Singh, V, and Cloud, D. Isokinetic shoulder strength profile of collegiate baseball pitchers. *Journal of Strength and Conditioning Research*. 36(4): e77-78, 2021.
9. **Szymanski, D**, Qiao, M, Singh, V, and Szymanski, J. Correlation of power to fastball velocity of collegiate baseball pitchers. *Journal of Strength and Conditioning Research*. 36(4): e192-193, 2021.
10. Ivey, MQ, Nevala, ED, and **Szymanski, DJ**. Comparison of two devices for measuring bat velocity of adolescent baseball players: A pilot study. *Journal of Strength and Conditioning Research*. 31(1): S62-63, 2017.

Selected Presentations (International):

1. **Szymanski, DJ.** Physical training for youth baseball players for injury prevention and performance enhancement. National Olympics Memorial Youth Center: NSCA Japan Selected Coaches. Hands-on presentation. Tokyo, Japan, December 5, 2014.
2. **Szymanski, DJ.** Physical training for youth baseball players for injury prevention and performance enhancement. NSCA Japan National Conference. Lecture & hands-on presentation. Tokyo, Japan, December 7, 2014.
3. **Szymanski, DJ.** Contributing factors for increased bat swing velocity and resistance training to develop increased bat velocity. NSCA Japan Special Symposium: Tokyo College of Sports and Recreation. Lecture. Tokyo, Japan, December 8, 2014.

Selected Presentations (National):

1. **Szymanski, DJ.** Baseball performance testing and assessment. Session presentation. National Strength and Conditioning Association's Coaches Conference. Raleigh, NC, January 6, 2023.
2. Amonnette, W, McHenry, P, Somerville, D, and **Szymanski, D.** NSCA & Human Kinetics *Strength Training for Baseball* book Roundtable. January 6, 2022.
3. Johnson, W, McMahon, E, Siara, J, Stuart, A, **Szymanski, D,** and Weeks, J. NSCA Baseball and Sport Science SIG Performance Technology Working Lunch Roundtable. October, 7, 2021.
4. **Szymanski, DJ.** Essential components to a baseball resistance training program. Session Presentation. National Strength and Conditioning Association's Coaches Conference. Indianapolis, IN, January 11, 2014.
5. Greenwood, M, Jones, M, Carter, J, Coleman, G, Gravani, K, **Szymanski, D,** and Byars, A. Sport nutrition eating habits of NCAA-Division I athletes. Session Presentation. National Strength and Conditioning Association's National Conference, Las Vegas NV, July 13, 2013.
6. **Szymanski, DJ.** In-season training for the pitcher: The why and how. Session Presentation. National Strength and Conditioning Association's Coaches Conference. San Antonio, TX. January 7, 2012.
7. **Szymanski, DJ.** Longitudinal effects of 3-years of resistance training on performance variables of college baseball players. Session Presentation. National Strength and Conditioning Association's Sport-Specific Training Conference. Orlando, FL. January 8-9, 2010.

Selected Presentations (State & Local):

1. **Szymanski, DJ.** Nutrition to Enhance Performance. Louisiana Tech University Air Force ROTC. Ruston, LA. March 21, 2023.
2. **Szymanski, DJ.** What is Kinesiology and Its Professions. HIM 130. Louisiana Tech University. Ruston, LA. February 17, 2023.
3. **Szymanski, DJ.** How to use ArmCare for the baseball player. PACE Baseball Clinic. Omaha, NE. June 15, 2022.
4. **Szymanski, DJ.** Preseason resistance training for youth baseball players. PACE Baseball Clinic. Omaha, NE. June 15, 2022.
5. **Szymanski, DJ.** Sports nutrition & grocery shopping. PACE Baseball Clinic. Omaha, NE. June 15, 2022.
6. **Szymanski, DJ.** How to get the most out of your weight training workout. Health & Wellness Seminar. Louisiana Tech University. December 5, 2017.
7. **Szymanski, DJ.** Dr. Szymanski and the scientific quest for optimal baseball performance. Seminar presentation. Texas

A&M University. October 9, 2017.

8. **Szymanski, DJ.** Dr. Szymanski and the quest for optimal baseball performance. Biology Seminar Series. Seminar presentation. Louisiana Tech University. May 8, 2017.
9. **Szymanski, DJ.** Resistance training for youth baseball players. NSCA Louisiana State Clinic. Session presentation. Northwestern State University. April 8, 2017.

Selected Presentations (Podcast):

1. NSCA's Coaching Podcast with Eric McMahon and Dr. David Szymanski. Recorded on Monday, June 24, 2022. <https://www.nasca.com/education/podcasts/nsca-coaching-podcast/season-6/season-6-episode-6/>
2. USA Baseball. Virtual Community Clinic - November 17, 2021. https://usabdevelops.com/USAB/Blog/November_17_2021.aspx
3. American Academy of Sports Physical Therapy Professional Development Content. Casual Chats about Serious Stuff with Dr. Szymanski: researcher, coach, and all things baseball performance. November 4, 2021. <https://overcast.fm/+1tC07OilY>
4. ArmCare.com. Episode 27. More than Velocity: What a PhD thinks about strength & baseball performance. November 1, 2021. Apple Podcasts <https://armcare.com/blog/what-a-phd-thinks-about-strength-baseball-performance-more-than-velocity-27/>
5. Revolution Sports Performance. Episode 11 – Dr. Szymanski Interview Part 2. April 24, 2019. <https://anchor.fm/barrett-stover/episodes/Episode-11--Dr--Szymanski-Interview-Part-2-e3r727>
6. Revolution Sports Performance. Episode 10 – Dr. Szymanski Interview Part 1. April 17, 2019. <https://podcasts.apple.com/us/podcast/episode-10-dr-szymanski-interview-part-1/id1347758204?i=1000435180885>

Grants:

1. NSCA Foundation Grant. Submitted February 15, 2023. **David Szymanski**, Junhai Xu, and Mu Qiao. \$24,900. Not funded.
2. Lagniappe Ladies Grant. Louisiana Tech University. March 1, 2022. **David Szymanski**. \$4,990.00. Submitted March 1, 2022. Not funded.
3. Lagniappe Ladies Grant. Louisiana Tech University. March 1, 2022. **David Szymanski**. \$2,197.00. Submitted March 1, 2022. Not funded.
4. National Institute of Health. Expansion of Biomedical Research Facilities to Enhance BRAIN Initiative Collaborations in North Louisiana. PI - Leon Iasemidis, Sam Wallace, Co-PIs – Rebecca McConnico, Melinda Bryan, **David Szymanski**, Mu Qiao, Andrew Parks, et al. Submitted and accepted for review March 31, 2021. \$6,050,000.00. Not funded.
5. National Institute of Health. Expansion of Biomedical Research Facilities to Enhance BRAIN Initiative Collaborations in North Louisiana. PI - Leon Iasemidis, Sam Wallace, Co-PIs – Rebecca McConnico, Melinda Bryan, **David Szymanski**, Mu Qiao, Andrew Parks, et al. Submitted and accepted for review March 31, 2020. \$ 5,000,000.00. Not funded.
6. Student Technology Fee Board. Louisiana Tech University. **David Szymanski**, Jean Chen, Lacey Deal, Ben Gleason, C. Smiley Reeves, and Vishesh Singh. Submitted September 15, 2018. \$191,825.35. Funded \$63,514.00 (2018).

7. Student Technology Fee Board. Louisiana Tech University. **David Szymanski**, Ben Gleason, and Vishesh Singh. Submitted March 26, 2018. \$172,926.00. Funded \$1,200 (2018).
8. LOSFA through LABOR Grant. Gaming Activities for Motivating an Innovative New Generation (GAMING) for STEAM Careers. Lindsey Keith-Vincent, Lillian Diane Madden, **David Szymanski**, Jordan Blazo, Jane Jacob, George Noflin, Glenn Larson, Devonia Love-Vaughan, and Tim Bishop. Submitted December 4, 2017. \$192,000.00. Not funded.
9. Student Technology Fee Board. Louisiana Tech University. **David Szymanski**, Ben Gleason, and Vishesh Singh. Submitted October 20, 2017. \$180,174.50. Funded \$68,312 (2017).
10. Student Technology Fee Board. Louisiana Tech University. **David Szymanski** and Vishesh Singh. \$16,701.55. Submitted March 14, 2017. Funded \$16,701.55 (2017).

Academic Honors & Awards:

Leadership Medallion, Louisiana Tech University, 2018

Presidential Medallion, Louisiana Tech University, 2014

University Senate Chair Award Recipient, Louisiana Tech University, 2013

University Senate Chair Award Nominee, Louisiana Tech University, 2012

Fellow of the NSCA, 2011-present

Eva Cunningham Endowed Professorship in Education, 2011-present

Virgil Orr Undergraduate Junior Faculty Award Recipient, Louisiana Tech University, 2008

Certifications:

Registered Strength and Conditioning Coach Emeritus, NSCA, 2013-present

Certified Strength and Conditioning Specialist with Distinction, NSCA, 2006-present

Certified Strength and Conditioning Specialist, NSCA 1996-2006

Certified in CPR & First Aid

Professional Memberships:

NSCA: National Strength and Conditioning Association, 1993-present

ACSM: American College of Sports Medicine, 1997-2017

SIG: Special Interest Group (Baseball) with the NSCA, 2002-present

SEACSM: Southeastern American College of Sports Medicine, 2007-2017