

RYAN LIS, PHD, CSCS

Department of Exercise Science
Springfield College
Springfield, MA 01109

Phone: 540-834-3508
Primary E-Mail: rlis@springfieldcollege.edu
Secondary E-Mail: rlis9@yahoo.com

EDUCATION

- August 2024 **Doctor of Philosophy in Sport Performance** *Concentration: Sport Physiology*
East Tennessee State University; Johnson City, TN
Dissertation: *Soreness and Perceptual Responses from the Combined Use of Accentuated Eccentric Loading and Cluster Sets During a Strength-Endurance Training Block*
Chair: Dr. Michael Henry Stone
• 3.94 GPA
- May 2021 **Master of Science in Kinesiology** *Concentration: Sports Performance*
Louisiana Tech University; Ruston, LA
Thesis: *Relationship Between Jump Tests and Their Influence on Multidirectional Ground-Reaction Forces in Baseball Pitchers*
Chair: Dr. David Szymanski
• 3.8 GPA
- May 2019 **Bachelor of Science in Kinesiology** *Concentration: Exercise Science*
Longwood University; Farmville, VA
• Cumulative GPA: 3.58 / Major GPA: 3.8
 ◦ Magna Cum Laude
 ◦ Dean's List (4 semesters)

PROFESSIONAL EXPERIENCE

- September 2026 – Present **Assistant Professor of Sport Science**
Springfield College, Springfield, Ma
Advisor: Dr. Elizabeth O'Neill
• Conducted courses in: Exercise Testing & Prescription (AEXS 360), Foundations of Training for Health & Performance (AEXS 380), Sports Nutrition (AEXS 540)
- August 2024 – May 2026 **Milligan Athletics: Co-Director of Athletic Performance**
Milligan University, Milligan College, TN
Advisor: Dr. Marco Duca
• Supervise graduate assistant strength & conditioning coaches for men's & women's swimming, throws, sprinters, basketball, women's soccer, and women's volleyball
• Assist and educate in programming, periodization, exercise technique, and coaching to graduate assistant strength and conditioning coaches
• Consult with Director of Performance (Dr. Marco Duca) at East Tennessee State University
• Assist Center of Excellence for Sport Science and Coach Education with internship search and served as internship advisor
• Director of Milligan Sport Science Lab
- August 2024 – May 2026 **Assistant Professor of Sport & Exercise Science**
Milligan University, Milligan College, TN
Advisor: Dr. Trini Rangel

- Conducted courses in: Lifetime Wellness (EXSC 101), Principles of Training (EXSC 208), Measurement & Evaluation (EXSC 308), Human Nutrition (EXSC 333), Exercise Physiology (EXSC 341), Biomechanics (EXSC 352), Seminar Advanced Weight Training (EXSC 395)
- Committees: Athletics, Master of Arts in Coaching and Sport Management, Sport Management Faculty search
- Founder and faculty advisor for Milligan Sport Science Club
- Reviewer for Human Kinetics NSCA Tactical Strength & Conditioning Textbook 2nd edition
- Co-created and organized Milligan Sport Science Lab
- Pursued accreditation via NSCA Education Recognition Program (ERP)

August 2021 –
August 2024

Graduate Assistant & Graduate Teaching Assistant

East Tennessee State University, Johnson City, TN

Advisor: Dr. Marco Duca

- Director of Performance for Milligan University (NAIA) Men's & Women's Tennis (2022-2024)
- Director of Performance for Milligan University (NAIA) Women's Volleyball (2022-2024)
 - Program record for conference win percentage (19-2, 90.5%)
- Director of Performance for Milligan University (NAIA) Men's & Women's Swimming (2021-2022)
 - Appalachian Athletic Conference champions for Men's & Women's
 - NAIA Swimming National championship 5th place for Men's & Women's
 - Set a NAIA record for Men's 400m individual medley
- Conducted and assisted with athlete monitoring of ETSU & Milligan athletics
- Primary instructor for Structural Kinesiology (PEXS 4270) course

September 2019 –
May 2021

Graduate Teaching Assistant

Louisiana Tech University, Ruston, LA

Advisor: Dr. YuChun Chen

- Instructed courses: Introduction to Weight Training, Running/Jogging, Basketball, and Bowling courses
- Assisted with collection of collegiate baseball research combine data for Dr. David Szymanski
- Collected data for tempo running project for Dr. Benjamin Gleason

May – July 2019

Sports Performance Intern

Elon University, Elon, NC

Advisor: Cameron Ringstead

- Presented book reviews (Triphasic Training by Ben Peterson and Cal Dietz & New Functional Training for Sports by Michael Boyle) to fellow interns and staff
- Presented monitoring fatigue research to staff and interns
- Managed athletes' performance data (jumps, sprints, sled pushes)
- Led Division 1 athletes from football, baseball, and men's basketball through warm-ups, plyometrics, and assistance work
- Developed a training portfolio (needs analysis and annual plan) for women's lacrosse

August 2018 –
May 2019

Tutor for Anatomy & Physiology and Kinesiology Department

Longwood University, Farmville, VA

Advisor: Rebecca Sturgill

- Hosted additional lectures for students outside of class
- Consulted with professors about complex topics for students
- Conducted additional learning and searching to help improve student comprehension

- | | |
|-----------------------|--|
| May – August
2018 | <p>Holistic Human Performance Intern
 Barwis Methods, Port St. Lucie, FL
 Advisor: Bryan Wright</p> <ul style="list-style-type: none"> • Taught and delivered science-based running mechanics to athletes and general population • Hands on experience with unique gym equipment: Keiser gym equipment, KAATSU blood flow restriction, reverse hyperextension, machine assisted Nordic, athletic training platform, and bear squat machine • Developed a training portfolio (needs analysis and annual plan) for men's golf • Worked under neurological re-engineering program to enhance the lives of individuals with spinal cord or brain injuries |
| May – August
2017 | <p>Sports Performance Intern
 Virginia Commonwealth University, Richmond, VA
 Advisor: Ryan Metzger</p> <ul style="list-style-type: none"> • Learned from Tim Kontos (master strength & conditioning coach via the CSCCa) • Led Division 1 athletes from men's baseball, golf, soccer, track & field, women's basketball, volleyball, track & field, and soccer through warm-ups, workouts, and cool downs • Developed a training portfolio (needs analysis and annual plan) for women's soccer • Presented time under tension research to staff and interns |
| June – August
2016 | <p>Assistant Strength and Conditioning Coach
 Baker's Baseball Conditioning Camp, Fredericksburg, VA
 Advisor: Ernie Baker</p> <ul style="list-style-type: none"> • Facilitated circuit training for forty baseball athletes aged 11-18 • Individualized circuit plans for particular needs to be met |
| March – May
2016 | <p>Physical Intellectual Emotional Active Wellness Challenge Instructor
 Longwood University, Farmville, VA
 Advisor: Dr. Nathan Saunders</p> <ul style="list-style-type: none"> • Conducted baseline tests and recorded body measurements for a variety of students and faculty • Assisted in establishing the client's physical, intellectual, and emotional goals • Developed, monitored, and implemented a plan towards the client's objectives |

PROFESSIONAL INTERESTS

RESEARCH INTERESTS:

My interests focus on applied physiology, overtraining, and recovery towards human, athletic, and skill performance. I have recently studied how a jump testing methodology (hands on hips vs PVC pipe) might lead to differences in jump metrics. Other research I have been involved with includes accentuated eccentric loading and ground reaction forces within collegiate baseball pitchers.

TEACHING INTERESTS:

Oriented towards anatomy and physiology, structural kinesiology, applied strength and conditioning, exercise physiology, research design, statistical analysis, sports technology, sports nutrition, biomechanics, and laboratory methodologies. My experiences in teaching, being involved in athletic weight rooms, and completing the research process has enabled me to provide real world applications and insights into what students should know.

SCHOLARSHIP

PEER-REVIEWED JOURNAL ARTICLES (IN PRINT OR ACCEPTED):

1. **Lis, R.,** English, K., Smith, A., Stone, M. (2026) Starting from Nothing: Building an Applied Sport Science Program From the Ground Up—A 5-Step Process. *Strength & Conditioning Journal* (PAP)
2. **Lis, R.,** Long, A., Goode, N., McDowell, K., Nelson, D., Mizuguchi, S., Duca, M., Baur, M., Wagle, J., Fry, A., Stone, M. (2026) Chronic Comparison of Short Recovery Stress Scale in Trained Individuals Completing Traditional or Accentuated Eccentric Loading. *The Journal of Strength & Conditioning Research*, 40(8), 920–928
3. **Lis, R.,** Long, A., Goode, N., McDowell, K., Nelson, D., Mizuguchi, S., Duca, M., Baur, M., Wagle, J., Fry, A., Stone, M. (2026) Chronic Comparison of Upper- and Lower-Body Muscle Soreness in Trained Individuals Completing Traditional or Accentuated Eccentric Loading. *The Journal of strength and conditioning research*, 40(7), 739–746
4. McDowell, K., Long, A., Chae, S., Nelson, A., Goode, N., **Lis, R.,** Mizuguchi, S., Baur, M., Duca, M., Wagle, J., Fry, A., Daniel, G., Stone, M. (2025) Comparison of Strength Development in Traditional Set-Repetition Configuration Versus Accentuated Eccentric Loading Training over a 4-Week Strength-Endurance Block. *The Journal of Strength and Conditioning Research*, 39(8): pg. 850-856
5. McDowell, K., Long, A., Gahreman, D., Nelson, A., Goode, N., **Lis, R.,** Chae, S., Mizuguchi, S., Baur, M., Breuel, K., Duca, M., Wagle, J., Fry, A., Stone, M. (2024). The Endocrine and Body Composition Responses to Accentuated Eccentric Loading Performed in Cluster Sets During a Strength-Endurance Training Block. *Applied Sciences*, 14(23), 11332
6. **Lis, R.,** Szymanski, D. J., Crotin, R. L., & Qiao, M. (2024). The relationship between various jump tests and baseball pitching performance: a brief review. *Strength & Conditioning Journal*, 46(5): pg. 520-533
7. Chae, S., Long, A., **Lis, R.,** McDowell, K., Wagle, J., Carroll, K., Mizuguchi, S., Stone, M. H. (2024) Combined accentuated eccentric loading and rest redistribution in high-volume back squat: Acute kinetics and kinematics. *The Journal of Strength & Conditioning Research*, 38(4): pg. 640-647
8. Chae, S., Long, A., **Lis, R.,** McDowell, K., Wagle, J., Carroll, K., Mizuguchi, S., Stone, M. H. (2024) Combined accentuated eccentric loading and rest redistribution in high-volume back squat: Acute stimulus and fatigue. *The Journal of Strength & Conditioning Research*, 38(4): pg. 648-655
9. Gleason, B. H., Suchomel, T. J., Brewer, C., McMahon, E., **Lis, R. P.,** & Stone, M. H. (2024). Applying Sport Scientist Roles Within Organizations. *Strength & Conditioning Journal*, 46(1): pg. 43-54
10. Gleason, B. H., Suchomel, T. J., Pyne, D. B., Comfort, P., McMahon, E., Hornsby, W. G., **Lis, R. P.,** Stone, M. H. (2024). Development Pathways for the Sport Scientist: A Process for the United States. *Strength and Conditioning Journal*, 46(1): pg. 28-42
11. Gleason, B. H., Suchomel, T. J., Brewer, C., McMahon, E., **Lis, R. P.,** & Stone, M. H. (2024). Defining the sport scientist: common specialties and subspecialties. *Strength & Conditioning Journal*, 46(1): pg. 18-27
12. Gleason, B. H., Suchomel, T. J., Brewer, C., McMahon, E. L., **Lis, R. P.,** & Stone, M. H. (2024). Defining the sport scientist. *Strength & Conditioning Journal*, 46(1): pg. 2-17
13. **Lis, R.,** Szymanski, D. J., Qiao, M., & Crotin, R. L. (2023). Exploratory investigation into the impact of bilateral and unilateral jump characteristics on ground reaction force applications in baseball pitching. *The Journal of Strength & Conditioning Research*, 37(9): pg. 1852-1859

MANUSCRIPTS IN PREPARATION:

1. **Lis, R.,** Szymanski, D. J., Crotin, R. L., & Qiao, M. The relationship of unilateral lateral to medial jump and bilateral broad jump distances to pitching performance and ground reaction forces.

2. **Lis, R.**, Long, A., Stone, M. H. A Narrative Review of the Performance Benefits and Decrements of Eccentric and Accentuated Eccentric Loading Training Methods
3. **Lis, R.**, Forbes, D., Faust, T., Munson, W., Doyle, P., Crumley, J., White, D., English, K., Stone, M. Comparison of Hands on Hips Versus Plastic Pipe on Shoulders on Kinetic and Kinematic Outcomes During Countermovement and Static Jump Tests
4. Fish, D., Pustina, T., Ramsey, M., Stone, M., Stone, M., **Lis, R.** Athlete Performance Assessment Considerations
5. Fish, D., **Lis, R.**, Goode, N., Pustina, T., Ramsey, M., Stone, M., Stone, M. Range of Assessments for Physical Performance
6. Long, A., **Lis, R.**, Taber, C., Stone, M.H., Regional hypertrophy in sports performance.
7. Ojeda, R. S., **Lis, R. P.**, Gleason, B. H. The lunge gallop movement skill, a gallop variation.
8. Gleason, B. H., **Lis, R. P.** Physiological cost of tempo running.
9. Flora, T., Wayland, S., Baur, M., Goode, N., Long, A., **Lis, R.**, Mizuguchi, S., Stone, M. Lactate and Jump Decrements following Three Sets of 2's, 5's, and 10's in the Back Squat in Trained Individuals
10. Wayland, S., Flora, T., Baur, M., Goode, N., Long, A., **Lis, R.**, Mizuguchi, S., Stone, M. Metabolic Demands During Three Sets of 2's, 5's, and 10's in the Back Squat in Trained Individuals
11. Dennis, J., Barquero, F., Park, K., **Lis, R.**, Liu, H., Stone, M. Effect of resistance training on rectus femoris muscle morphology via ultrasound: A systematic review with meta-analysis.
12. Barquero, F., Dennis, J., Park, K., **Lis, R.**, Liu, H., Stone, M. Effects of resistance training on vastus lateralis muscle morphology via ultrasound: A systematic review with meta-analysis.
13. Long, A., Chae, S., Mizuguchi, S., **Lis, R.**, McDowell, K., Goode, N., Nelson, D.A., Gahreman, D., Stone, M. Accentuated Eccentric Loading versus Traditional Resistance Training: Regional Skeletal Muscle Hypertrophy, Architectural Adaptations, and Body Composition Alterations following Strength-Endurance Training

POSTER PRESENTATIONS (NOT INCLUDED IN ABSTRACTS):

1. Long, S. A., Chae, S., **Lis, R. P.**, Nelson, D., Mizuguchi, S., Stone, M. (2023, November). *Physiological adaptations following a strength-endurance block with accentuated eccentric loading or traditional resistance training*. [Poster Session]. 2023 Coaches College, Johnson, City, TN, United States.
2. Chae, S., Long, S. A., **Lis, R. P.**, McDowell, K. W., Wagle, J. P., Carroll, K. M., ... & Stone, M. H. (2023, July 12-15). *Total work and acute fatigue responses to combined accentuated eccentric loading and rest redistribution*. [Conference session]. 2023 National Conference of the National Strength and Conditioning Association, Las Vegas, NV, United States.
3. **Lis, R. P.**, Chae, S., Long, S. A., McDowell, K. W., Schroeder, Z. S., Patera, J. R., ... & Stone, M. H. (2022, November). *Perceptual and cardiorespiratory responses to combined accentuated eccentric loading and rest redistribution*. [Poster session]. 2022 Coaches College, Johnson City, TN, United States.
4. Chae, S., **Lis, R. P.**, Long, S. A., McDowell, K. W., Patera, J. R., Yoder, M. B., ... & Stone, M. H. (2022, November). *Mean kinetics and kinematics during combined accentuated eccentric loading and rest redistribution*. [Poster session]. 2022 Coaches College, Johnson City, TN, United States.
5. McDowell, K. W., Chae, S., **Lis, R. P.**, Long, S. A., Yoder, M. B., Flora, G. T., ... & Stone, M. H. (2022, November) *Peak kinetics and kinematics during combined accentuated eccentric loading and rest redistribution*. [Poster session]. 2022 Coaches College, Johnson City, TN, United States.
6. Long, S. A., Chae, S., McDowell, K. W., **Lis, R. P.**, Flora, G. T., Schroeder, Z. S., ... & Stone, M. H. (2022, November) *Metabolic and neuromuscular fatigue responses to combined accentuated eccentric loading and rest redistribution*. [Poster session]. 2022 Coaches College, Johnson City, TN, United States.

7. Barquero, F., Dennis, J., **Lis, R.**, Park, K., Stone, M. (2024, November) *Effect of Resistance Training on Vastus Lateralis Muscle Morphology via Ultrasound: A Systematic Review with Meta-Analysis* [Poster session]. 2024 Coaches College, Johnson City, TN, United States.
8. Barquero, F., Dennis, J., Park, K., **Lis, R.**, Liu, H., Stone, M. (2024, November) *Effect of Resistance Training on Rectus Femoris Muscle Morphology via Ultrasound: A Systematic Review with Meta-Analysis* [Poster session]. 2024 Coaches College, Johnson City, TN, United States.

INVITED PRESENTATIONS

1. **Lis, R.** “Soreness and Perceptual Differences Between Two Training Methods”, Milligan Faculty Lecture Series, Milligan University, Milligan College, TN. October 2025
2. Smith, A., Pope, C., **Lis, R.**, English, K. “Starting From Nothing: Building a Sport Science Program from the Ground Up at NCAA and NAIA Universities”, 19th International Coaches’ College, East Tennessee State University, Johnson City, TN. November 2024.

TEACHING EXPERIENCE

UNDERGRADUATE CORE COURSES:

- | | |
|---------------------------|---|
| August 2024 – Present | <p>Assistant Professor: EXSC 341, Exercise Physiology
 Milligan University, Milligan College TN</p> <ul style="list-style-type: none"> • Provided instruction in bioenergetics, energy expenditure, pulmonary physiology, aerobic training responses, resistance training responses, environmental conditions, hormones, ergogenic aids, body composition, and how exercise prevents health and disease complications • Created labs that focus on all aspects of health and fitness: pre-activity screening, flexibility, blood pressure, aerobic power, submaximal testing, high intensity testing, musculoskeletal measurement, anaerobic fitness, and body composition |
| August 2024 – Present | <p>Assistant Professor: EXSC 308, Measurement & Evaluation
 Milligan University, Milligan College TN</p> <ul style="list-style-type: none"> • Lectured students in what it means to test (Why that test? What do the results mean? What do we do now?) in an athletic or rehab setting • Evaluated students’ abilities to lead an entire class through a performance test and interpret the results |
| August 2024 – Present | <p>Assistant Professor: EXSC 208, Principles of Training
 Milligan University, Milligan College, TN</p> <ul style="list-style-type: none"> • Prepared students for the NSCA CSCS exam • Created weight room labs (back squat, bench press, deadlift, Olympic lifts) to prepare students for the practical section of the CSCS exam as well as prepare them for future careers/internships • Assigned workout creations (conditioning & resistance training) to help students learn how to design, program, and progress for strength-power athletes, high intensity intermittent athletes, endurance athletes, or general population • Honor’s elective mentor for honors student |
| August 2021 – August 2024 | <p>Primary Instructor: PEXS 4270, Structural Kinesiology
 East Tennessee State University, Johnson City, TN</p> <ul style="list-style-type: none"> • Helped students understand the entire human body's joints, bones, bony landmarks, muscles, and some neural aspects • Applied practical recommendations for sports and exercise performance |

UNDERGRADUATE ACTIVITY COURSES:

- August 2019 - May 2021 **Instructor: KINE 130, Running/Jogging**
Louisiana Tech University, Ruston, LA
- Developed lectures covering plyometrics, running mechanics, sleep, and basic sport nutrition recommendations
 - Created daily workouts
- August 2019 - May 2021 **Instructor: KINE 144, Weight Training**
Louisiana Tech University, Ruston, LA
- Designed lectures covering six areas of fitness, how to design a workout, and identify steps to reach goals
 - Created daily workouts, taught proper form, and educated about safety within the weight room
- August 2019 - May 2021 **Instructor: KINE 126, Bowling**
Louisiana Tech University, Ruston, LA
- Devised lectures for rehab exercises for bowling wrist/finger pain, bowling etiquette, and bowling form
 - Instructed students how to score a bowling game
- August 2018 – May 2019 **Tutor: Anatomy & Physiology and Kinesiology Departments**
Longwood University, Farmville, VA
- Reviewed class lectures for students outside of classroom hours
 - Supplemented teaching with additional videos or resources for topics

PROFESSIONAL DEVELOPMENT

- 2025 **Coaches College**
Center of Excellence for Sport Science and Coach Education, Johnson City, TN
- Introduced to statistical concepts for the field of sport science via Dr. Michael Stone
- 2025 **Decoding What You See- Making Sense of Movement Issues**
Dan Pfaff (Sprint Coach at Altis): Zoom
- Gained insight that elite sport operates within a narrow bandwidth, thus individualization applies to a certain extent
- 2025 **How to Spot Movement Problems - The Coaching Eye 101**
Dan Pfaff (Sprint Coach at Altis): Zoom
- Acquired strategies for spotting error within movement
- 2025 **Applied Performance Coach Summer Lecture Series: Strategic Implementation of DUP (In-Season Approach)**
Stephen Brindle (Head S&C coach for Philadelphia 76ers): Zoom
- Learned programming strategies and challenges at the NBA level
- 2024 **Coaches College**
Center of Excellence for Sport Science and Coach Education, Johnson City, TN
- Received education about training transfer and specificity via Dr. Bill Sands
- 2023 **Coaches College**
Center of Excellence for Sport Science and Coach Education, Johnson City, TN
- Learned about recovery methodologies via Dr. Iñigo Mujika

- | | |
|------|---|
| 2022 | Coaches College
Center of Excellence for Sport Science and Coach Education, Johnson City, TN
• Educated on communication techniques with head coaches via Dr. Aaron Cunanan |
| 2021 | Coaches College
Center of Excellence for Sport Science and Coach Education, Johnson City, TN
• Dr. Andy Fry presented about differences between fast vs slow reps |
| 2019 | SEACSM Conference
ACSM, Greenville, SC
• Participated in Undergraduate Student Bowl (2 nd place before final Jeopardy) |
| 2016 | Eric Cressey Shoulder seminar
Cressey Sports Performance, Washington, DC
• Detailed seminar with hands on experience for the shoulder joint in overhead athletes |
| 2016 | NSCA State Clinic
NSCA, Richmond, VA
• Networked with S&C staff and Professors at Longwood University |

CERTIFICATIONS

- | | |
|----------------|--|
| 2021 | Smartabase Capstone Project |
| 2019 - Present | NSCA Certified Strength and Conditioning Specialist (CSCS) |
| 2024 - Present | CPR, AED, and First Aid certified American Red Cross |

HONORS AND AWARDS

- | | |
|------|--|
| 2015 | Varsity Letter in Baseball, Riverbend High School (VA) |
| 2014 | Rank of Eagle Scout- Boy Scouts of America |

PROFESSIONAL AFFILIATIONS

- | | |
|----------------|---|
| 2026 – Present | New England Chapter of the American College of Sports Medicine (NEACSM) |
| 2015 - Present | National Strength and Conditioning Association (NSCA) |
| 2018 | Phi Epsilon Kappa Fraternity Member |