

Luke M. Pelton, PhD, CSCS, CISSN, BCS, CES

## **LUKE MATTHEW PELTON, PhD, CSCS, CISSN, BCS, CES**

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(413) 748-4762

*My professional mission is to educate others on the theoretical and applied principles of exercise science and physiology, to encourage a better understanding of scientific reasoning and logic, and to promote sound research practices.*

### **EDUCATION**

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**Doctorate of Philosophy in Exercise Physiology** August 2023  
Springfield College, Springfield, MA  
Specialization: Sports Physiology  
Advisor: Samuel A. E. Headley, PhD  
Committee Chair: Nicholas Coker, PhD  
Dissertation: The effect of training style and anabolic-androgenic steroid use on myogenic expression in iron sport athletes.

**Master of Science in Sports Science** December 2017  
Hofstra University, Hempstead, NY  
Concentration: Strength & Conditioning  
Advisor: Jamie J. Ghigiarelli, PhD  
Capstone Project: Effects of a 6-week bench press program using the freak bar in a sample of collegiate club powerlifters

**Bachelor of Science in Exercise Science** May 2014  
Hofstra University, Hempstead, NY  
Advisor: Katie M. Sell, PhD

### **ACADEMIC APPOINTMENTS**

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**Springfield College, Springfield, MA** Fall 2023-Present  
Assistant Professor of Exercise Science, Department of Exercise Science  
Human Performance Lab Coordinator  
AEXS 319: Kinesiology  
AEXS 335: Measurement & Statistics in Exercise Science  
AEXS 360: Exercise Testing & Prescription  
AEXS 380: Fundamentals of Training for Health & Performance  
AEXS 540: Sports Nutrition  
AEXS 606: Environmental Physiology  
AEXS 613: Exercise for Special Populations

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AEXS 620: Genetics for Exercise Science  
AEXS 622: Functional Anatomy & Biomechanics  
RSCH 610: Foundations and Methods of Research

**University of Hartford**, West Hartford, CT 2022-2023

Adjunct Instructor, Department of Exercise Science  
EX 315: Sports Nutrition  
EX 370W: Exercise Physiology  
EX 380: Injury Care and Prevention  
EX 421W: Exercise Prescription for Special Populations

**CT State College**, Manchester, CT 2020-2023

Adjunct Lecturer, Health and Exercise Science Program  
HPE B243-32807: Kinesiology  
HPE B241-10286: Exercise Physiology

**Smith College**, Northampton, MA Fall 2021

Adjunct Instructor, Department of Exercise and Sports Studies  
ESS 509: Musculoskeletal Anatomy

**Springfield College**, Springfield, MA Spring 2021

Adjunct Instructor, Department of Biology/Chemistry  
BIOL 133: Anatomy & Physiology Concepts II Lab

**Springfield College**, Springfield, MA 2019-2023

Doctoral Teaching Fellow, Department of Physical Education and Health Education  
RSCH 610: Foundations and Methods of Research  
RSCH 612: Thesis Proposal Design  
RSCH 618: Guided Individual Study  
RSCH 620: Educational Psychology Statistics I  
RSCH 712: Dissertation Proposal Design

**Hofstra University**, Hempstead, NY 2018-2019

Adjunct Instructor, Department of Health Professions  
HPR 251: Special Reading Seminar  
HPR 290: Scientific Foundations of Strength and Conditioning

**Hofstra University**, Hempstead, NY 2015-2019

Adjunct Instructor, Department of Specialized Programs in Education  
PESP 025: Fitness for Life  
PESP 038B: Weight Training  
PESP 180N: Powerlifting

## SCHOLARSHIP

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### Journal Publications

Hutchinson J, Murphy J, De Lucia B, O'Neill E, Curtis D, Mellano K, **Pelton L**, Coker N. Effects of preferred vs. nonpreferred music on bench press performance: A replication and extension study. *Communications in Kinesiology*, 1(6). <https://doi.org/10.51224/cik.2024.60>

**Pelton LM**, McMahon E. The current state of the sports science field and careers. *NSCA Coach*, 2023;10(4):4-9.

**Pelton, LM**, Maris, SA, Loseke, J. The effects of anabolic-androgenic steroids on gene expression in skeletal muscle: A systematic review. *International Journal of Exercise Science*, 2023;16(3): 53-82.

**Pelton, LM**, Mullin, EM. The relationship of anabolic-androgenic steroids and sexual health among male competitive strength athletes: 1138. *Medicine & Science in Sports & Exercise*, 2021;53(8S):368.

Ghigiarelli JJ, Fulop AM, Burke A, Ferrara A, Sell KM, Gonzalez AM, **Pelton LM**, Zimmerman JA, Coke S, Marshall D. The effects of whole-body photobiomodulation light-bed therapy on creatine kinase and salivary interleukin-6 in a sample of trained males: A randomized, crossover study. *Frontiers in Sports and Active Living*, 2020. <https://doi: 10.3389/fspor.2020.00048>.

Ghigiarelli JJ, **Pelton LM**, Gonzalez AM, Fulop AM, Gee JY, Sell KM. Effects of a 6-week bench press program using the freak bar in a sample of collegiate club powerlifters. *Journal of Strength and Conditioning Research*, 2018;32(4):938-949.

### Conference Presentations

**Pelton LM**. (2023). In the Lab vs. In the Trenches: Evidence vs. Anecdote. Tutorial lecture. Presented at: 2023 NEACSM Fall Conference.

**Pelton LM**, Fields J, Nitzsche E, Pelton JA. (2022). Impacts of cannabis use timing, biologic gender, and iron sport participation on perceived recovery. Presented at: 2022 NEACSM Fall Conference.

**Pelton LM**, Mullin EM. (2021). The relationship of anabolic-androgenic steroids and sexual health among male competitive strength athletes. Presented at: 2021 ACSM Annual Meeting.

Ambord, M., Hauch, E., Baker, G., **Pelton, L.**, Stenson, M. (2021). The Predictive Relationship Between Training Impulse, Sleep Quality, and Sleep Quantity. Presented at: 2021 American College of Sports Medicine Northland Chapter Spring Tutorial, Virtual. *1st Place, Outstanding Undergraduate Research Award*.

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Berglove, M., **Pelton, L.**, Stenson, M. (2021). Changes in Training Load and Perceived Health Across a Division III Women's Basketball Season. Presented at: 2021 American College of Sports Medicine Northland Chapter Spring Tutorial, Virtual. *3rd Place, Outstanding Undergraduate Research Award.*

Reding, J., Miller, J., **Pelton, L.**, Stenson, M. (2021). The Relationship Between Sleep Quality and Quantity and Muscle Readiness, Stress, and Overall Health in College Athletes. Presented at: 2021 American College of Sports Medicine Northland Chapter Spring Tutorial, Virtual. *2nd Place, Outstanding Undergraduate Research Award.*

Schabaker, A., **Pelton, L.**, Stenson, M. (2021). Perceived Stress, Energy, and Mood State During High and Low Stress Academic Weeks in Division III Female Athletes. Presented at: 2021 American College of Sports Medicine Northland Chapter Spring Tutorial, Virtual.

## **Guest Presentations**

**Pelton LM.** (2022). Is bodybuilding a sport?

Presented to: PHIL 120: Philosophy of Sport, Springfield College, Springfield, MA.

**Pelton LM.** (2021). Ad astra: Bringing space physiology to Springfield College.

Presented to: Springfield College Graduate Student Organization PRIDE Talks Initiative, Springfield College, Springfield, MA.

**Pelton LM.** (2021). The physiology of aging: Staying healthy in your senior years.

Presented to: Springfield College Campus Recreation Employee Wellness Programs, Springfield College, Springfield, MA.

**Pelton LM.** (2018). Applying corrective exercise to competitive powerlifting.

Presented to: HPR 170H: Corrective Exercise, Hofstra University, Hempstead, NY.

**Pelton LM.** (2017). Applying corrective exercise to competitive powerlifting.

Presented to: HPR 170H: Corrective Exercise, Hofstra University, Hempstead, NY.

**Pelton LM.** (2016). Periodization for powerlifting.

Presented to: HPR 293: Scientific Foundations of Strength and Conditioning, Hofstra University, Hempstead, NY.

**Pelton LM.** (2016). The Westside Barbell conjugate powerlifting method.

Presented to: HPR 292: Strength and Conditioning Techniques, Hofstra University, Hempstead, NY.

## **Grant Applications**

Whiton TK, **Pelton LM**, Tardif E, Burnham A, Goff B, Mourmouras M. The correlation between low energy availability risk and force plate biomechanical characteristics of division III collegiate athletes. Co-Principal Investigator. National Strength & Conditioning Association

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Directed Research Grant (2024).

**Pelton LM**, Maris SA, Headley SAE. The effects of ground-based resistance exercise and simulated microgravity on muscle strength and gene expression. Student Investigator. American College of Sports Medicine NASA Space Physiology Research Grant (2021) **\$5,306** [Not funded]

## **Editorial Contributions**

*International Journal of Sports Science and Physical Education*. Reviewer.

American Physiological Summit 2023. American Physiological Society: Endocrinology & Metabolism Section. [Abstract Reviewer]

Kriel Y, Kerherve H, Askew C, Solomon C. Sprint interval training recovery format: Enjoyment & blood pressure in inactive men. *Journal of Clinical Exercise Physiology*. [Aided in peer review]

## **CERTIFICATIONS**

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<b>Certified Strength and Conditioning Specialist</b> National Strength and Conditioning Association	2015
<b>Certified Instructor of Sports Nutrition</b> International Society of Sports Nutrition	2016
<b>Behavior Change Specialist</b> National Academy of Sports Medicine	2018
<b>Corrective Exercise Specialist</b> National Academy of Sports Medicine	2017
<b>Certified Personal Trainer (Inactive)</b> National Strength and Conditioning Association	2013

## **OTHER PROFESSIONAL EXPERIENCE**

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### **Scientific Content**

**University of Hartford**, West Hartford, CT Fall 2023  
Sports nutrition consultant, “Hydration and sport nutrition education for Division III athletes”

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**ExPhysCast**, East Hartford, CT 2021-2022  
Podcast Co-host

**National Strength and Conditioning Association**, Colorado Springs, CO Spring 2022  
Sports Science Intern

**Zachracowperformance.com** 2020  
Contributing Writer

### **Clinical Work**

**Baystate Cardiology, Baystate Health**, Springfield, MA Fall 2021  
Cardiac Rehabilitation Clinical Exercise Physiology Intern

**Sportscare Physical Therapy**, Farmingdale, NY Spring 2017  
Physical Therapy Aide

### **Coaching**

**Strong for Life Co.**, Remote 2022-Present  
Head Powerlifting Coach

**Springfield College Team Ironsports**, Springfield, MA Fall 2022-Spring 2023  
Strength & Conditioning Coaching Intern

**Black Squirrel Strength & Conditioning, LLC**, East Hartford, CT 2019-2020  
Owner, Head Coach

**Hofstra University Continuing Education**, Hempstead, NY 2017-2018  
Sports Strength & Conditioning Camp Instructor

**Professional Athletic Performance Center**, Garden City, NY 2015, 2018-2019  
Performance Coach

**Hofstra University Department of Campus Recreation**, Hempstead, NY 2014-2019  
Powerlifting Club Head Coach

**Hofstra University Athletics**, Hempstead, NY Spring 2014  
Strength & Conditioning Intern

**Learning Exercise and the Right Nutrition**, Baldwin, NY 2013-2014  
Personal Trainer

**Camp Twin Creeks**, Marlinton, WV Summer 2011  
Activity Specialist

### **Other Experience**

<b>Hofstra University Dep't of Health Studies and Kinesiology</b> , Hempstead, NY Administrative Assistant	2013-2014
<b>Hofstra University Center for University Advisement</b> , Hempstead, NY University Tutorial Program Student Tutor Anatomy & Physiology, Biology in Society, Exercise Physiology	Fall 2013
<b>The Vitamin Shoppe</b> , Garden City, NY Health Enthusiast	2012-2013

### **PROFESSIONAL SERVICE & VOLUNTEER WORK**

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<b>Springfield College Department of Exercise Science</b> , Springfield, MA Thesis Committee Content Expert <i>Ohlmaier, M. "Comparing Athletic Identity Between Female Bodybuilders and Collegiate Athletes."</i> <i>Battisti, K. [Proposal pending].</i> <i>Negrete, D. [Proposal pending].</i> <i>Lamagdelaine, L. [Proposal pending].</i>	2023-
<b>Springfield College School of PEPSL</b> , Springfield, MA Independent Study reader & evaluator	Spring 2024, Summer 2024
<b>Springfield College Department of Exercise Science and Athletic Training</b> Undergraduate admissions open house volunteer	2023-2024
<b>American College of Sports Medicine, New England Chapter</b> MAX! Newsletter co-editor	Fall 2023-Present
<b>American College of Sports Medicine, New England Chapter</b> Fall Meeting Speaker Introduction	Fall 2022, Fall 2023
<b>American College of Sports Medicine, New England Chapter</b> Fall Meeting Session Moderator	Fall 2022
<b>Springfield College Exercise Physiology</b> , Springfield, MA Social Media Manager Program Apparel Manager	2020-Present
<b>Springfield College Graduate Student Organization</b> , Springfield, MA Vice President	2021-2022
<b>American College of Sports Medicine, New England Chapter</b>	2021-2023

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Student Representative

**Springfield College Office of Academic Affairs**, Springfield, MA  
Evaluator, Scholars in Action Day Spring 2021, 2024

**Clinical Exercise Physiology Association** Fall 2020, 2021  
Panel Introducer, CEPA Online Fall 2021 Conference  
Panel Introducer, CEPA Online Fall 2020 Conference

**Springfield College Peer Mentor Research Program**, Springfield, MA 2019-2023  
Doctoral Research Peer Mentor

**School of PEPSL, Springfield College**, Springfield, MA 2019-2023  
Co-Director, Graduate Research Peer Mentoring Program

**Revolution Powerlifting Syndicate** 2017-2019  
Teen and Junior Advisor

**Hofstra University Faculty Research Day**, Hempstead, NY Fall 2017  
Presenter

**Learning Exercise and the Right Nutrition**, Baldwin, NY Spring 2013  
Receptionist

## HONORS AND AWARDS

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**Legacy Scholarship Recipient**, NSCA 2022

**PRIDETalks Initiative**, Springfield College Spring 2021

**Doctoral Teaching Fellowship**, Springfield College 2019-2023

**Graduate with Distinction**, Hofstra University Fall 2017

**Graduate Physical Education Scholarship**, Hofstra University 2016-2017

**Graduate Assistantship**, Hofstra University Fall 2014

**Magna cum Laude**, Hofstra University Spring 2014

**Dean's List**, Hofstra University 2010-2014

## PROFESSIONAL TRAINING

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**Human Subjects Research: Basic Course** 2021  
CITI Program

**Preventing Harassment & Discrimination** 2021  
Springfield College

**Sexual Assault Prevention for Graduate Students** 2020, 2021  
Springfield College

## COMMUNITY SERVICE

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**Springfield College Team Ironsports, Springfield, MA** 2022  
\$806 Bench Press for Breast Cancer fundraiser event  
Breast Cancer Research Foundation

**Springfield College Campus Recreation, Springfield, MA** 2021  
\$1,005 Bench Press for Breast Cancer fundraiser event  
Breast Cancer Research Foundation

**Protectors of Animals, South Windsor, CT**  
Wedding favor donation 2020

**Hofstra Campus Recreation, Hempstead, NY**  
Thanksgiving Food Drive 2018

**Revolution Powerlifting Syndicate, Royersford, PA**  
Thanksgiving Pet Shelter Drive 2017

**Snatch and Rescue, Freeport, NY**  
\$500 Fundraiser 2015

## EXTRACURRICULAR ACTIVITIES

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**Reddit.com** 2021-Present  
Moderator, /r/exercisescience

**Hofstra University Powerlifting Club, Hempstead, NY** 2013-2014  
Club Founder, Captain, President

## PROFESSIONAL AFFILIATIONS

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American Society of Biomechanics 2024-Present

Human Enhancement Drugs Network	2023-Present
American Physiological Society	2021-Present
Clinical Exercise Physiology Association	2020-Present
American College of Sports Medicine	2019-Present
American College of Sports Medicine (New England Chapter)	2019-Present
National Academy of Sports Medicine	2017-Present
International Society of Sports Nutrition	2016-Present
National Strength and Conditioning Association	2013-Present
Aerospace Physiology Society	2020-2022
Aerospace Medical Association	2020-2022

## **LABORATORY TECHNIQUES**

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- ❖ **Cardiovascular measurements**
  - 12-Lead ECG
  - Cardiovascular Impedance
  - Blood Pressure w/sphygmomanometer
  - Pulse Wave Velocity w/sphygmoCor
  - Ankle-Brachial Index (ABI) w/doppler ultrasound (Balke protocol)
- ❖ **Graded exercise testing**
  - Bruce protocol
  - Cycle ergometry
- ❖ **Functional testing**
  - 6-minute walk test
  - Get-up and go test
  - Berg balance test
  - Sit-to-stand test
  - Functional reach test
- ❖ **Muscular strength/power assessment**
  - Biodex isokinetic dynamometer
  - Delsys Trigno EMG
  - Handgrip dynamometer
  - Resistance exercise
  - LESS Landing Scale
- ❖ **Body composition assessment**

- Tanita Digital Scale
- Skinfold measurements w/calipers
- Circumference measures
- BodPod
- ❖ **Biomechanics**
  - Goniometry
- ❖ **Calibration**
  - Treadmill
  - Cycle ergometer
  - Metabolic cart
  - Automated sphygmomanometer
  - ECG
  - Scale
  - Spirometer
  - BodPod
- ❖ **Biochemistry Techniques**
  - Blood processing
  - ELISA