#### **Curriculum Vitae**

# David A. Titcomb, PT, DPT, PhD, ACSM-EP, NASM-CES

Professor of Health Sciences
Director: Undergraduate Exercise Science Program
Director: Biomechanics & Motion Analysis Laboratory
Liberty University
Department of Allied Health Professions
1971 University Blvd
Lynchburg, VA 24515

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## **Education**

**Doctor of Philosophy in Health and Human Performance**, 2022, Concordia University Chicago, River Forest, II. Dissertation title: "The Effects of Postural Education or Corrective Exercise Intervention on the Craniovertebral Angle in Young Adults with Forward Head Posture"

**Doctor of Physical Therapy**, 2006, University of St. Augustine for Health Sciences, Institute of Physical Therapy, St. Augustine, FL, Craniofacial specialization track. Capstone Project: "State of the Art Craniofacial" course.

Master of Physical Therapy, 1997, Old Dominion University, Norfolk, VA

Bachelor of Science, 1995, Major: Exercise Science, Old Dominion University, Norfolk, VA

#### **Teaching Experience**

**July 2008-present** Liberty University, Lynchburg, VA

Professor of Health Sciences

Director, Undergraduate Exercise Science Program, July 2013-Present Director, Biomechanics & Motion Analysis Laboratory 2015-Present Practicum Coordinator, Exercise Science Program 2009-2019

2014-2017 Wingate University Doctor of Physical Therapy Program

Wingate, NC Adjunct Faculty **2008** University of St. Augustine for Health Sciences Institute of Physical

Therapy, St. Augustine, FL

Online Instructor

## **Clinical Experience**

**2019-present** PRN Physical Therapist, Drayer Physical Therapy Virginia LLC.

Lynchburg, VA

**2014-2019** PRN Physical Therapist, Orthodontic Arts, Forest, VA

2012-2022 Part-time Physical Therapist for Liberty University Club Sports

**2008-2012** Part-time Physical Therapist, First Dominion Home Health Care,

Lynchburg, VA

**2002-2008** Physical Therapist, Rehab Associates of Central VA, Lynchburg, VA

Site Director of Thomson Dr. Clinic 2007-2008. Provided patient care as well as oversaw the day-to-day operation of the clinic. Clinical Instructor

for student internships.

1997-2002 Physical Therapist/Coordinator, Centra Health, Lynchburg, VA

Coordinator of Healthy Living Center (Centra Health) at Jamerson YMCA, Lynchburg, VA: 2002. Provided sports and orthopedic rehabilitation; oversaw day-to-day operation of the multidisciplinary health center (PT, OT, Cardiac and Pulmonary Rehabilitation, Massage therapy, Biometrics

nutrition program). Clinical Instructor for student internships.

Coordinator of PT at Courtside Athletic Club (Centra Health) Lynchburg, VA, 2000-2002. Provided sports and orthopedic rehabilitation; oversaw day-to-day clinic operation. Clinical Instructor for student internships.

Physical Therapist, Centra Health, Lynchburg General Hospital and Virginia Baptist Hospital, Lynchburg, VA 1997-2000. Experience in acute care, acute rehabilitation, home health, and hospital based outpatient settings.

#### **Licensure/Certifications**

Licensed Physical Therapist, Commonwealth of Virginia, 1997-present

Certified Exercise Physiologist, American College of Sports Medicine 2011-present

FMS-level 1, Functional Movement Systems, 2014-present

Dartfish (video analysis) Certified Technologist, 2014-present

Certified Corrective Exercise Specialist, National Academy of Sports Medicine 2019-present

### **Courses Taught**

### **University of St. Augustine**

CF2- Intermediate Craniofacial (Online)

#### **Liberty University**

HLTH 211 Anatomy and Physiology I for Associate Programs

HLTH 212 Anatomy and Physiology II for Associate Programs

HLTH 221 Applied Human Anatomy and Physiology I

HLTH 222 Applied Human Anatomy and Physiology II

KINE 225 Weight Training and Conditioning

EXSC 310 Physiology of Exercise

EXSC 321/421 Practicum in Exercise Science

**EXSC 350 Biomechanics** 

EXSC 351 Biomechanics Lab

EXSC 550 Advanced Biomechanical Analysis

EXSC 551 Advanced Biomechanical Analysis Lab

### **Courses Developed**

#### **Liberty University**

EXSC 351 Biomechanics Lab

EXSC 550 Advanced Biomechanical Analysis (LU Online and Residential)

EXSC 551 Advanced Biomechanical Analysis Lab

HLTH 211 Anatomy and Physiology I for Associate Programs (LU Online)

HLTH 212 Anatomy and Physiology II for Associate Programs (LU Online)

HLTH 221 Applied Human Anatomy and Physiology I (LU Online)

HLTH 222 Applied Human Anatomy and Physiology II (LU Online)

#### Undergraduate Research Mentoring: Liberty University Honors Program

Honors Thesis Chairman, Evan Sebastian, *The Complexity and Origins of the Human Eye: A Brief Study on the Anatomy, Physiology, and Origin of the Eye*, 2010.

Honors Thesis Chairman, Peter Sargent, The Effects of Pitching on the Upper Extremity, 2010.

Honors Thesis Committee, Mark Hopely, *The Effects of Music on Exercise Training and Athletic Performance*, 2010.

Honors Thesis Committee, Beth Gillie, ACL Injury Prevention for Female Athletes, 2010.

Honors Thesis Chairman, Cassandra Bernhart, *A Review of Stretching Techniques and Their Effects on Exercise*, 2013.

Honors Thesis Chairman, Kimberly Dahl, External Factors and Athletic Performance, 2013

Honors Thesis Committee, Amy McLaughlin, *The Use and Effects of Vitamin C in Cancer Treatment*, 2013.

Honors Thesis Committee, Meghan Bowles, *The Long-Term Effects of Acute and Chronic Injuries in College Athletes*, 2014.

Honors Thesis Committee, Jeshua Spadino, *The Fenzian Unit- Applications for Physical Therapy and Beyond*, 2014.

Honors Thesis Chairman, Laura Gilbert, *The Effects of Obesity on Human Ambulation: A lower Joint Analysis*, 2014.

Honors Thesis Committee, Michael Frost, *The Impact of Alzheimer's Disease on Family Caregivers*, 2014.

Honors Thesis Chairman, Peter Horning, A Leg to Stand on: The Development of Prosthetics in Third-World Countries, 2014.

Honors Thesis Committee, Kaitlyn Quesinberry, Hippotherapy in Occupational Therapy, 2015

Honors Thesis Chairman, Victoria Ramos, *The Psychological and Physical Rehabilitation of Amputees*, 2016.

Honors Thesis Chairman, Jamie Rogers, Comparison of Lower Extremity Joint Reaction Forces During Barefoot Running Utilizing Rearfoot vs. Forefoot Initial Strike Pattern, 2017.

Honors Thesis Chairman, Megan Merryman, *Promoting Physical Activity as a Lifestyle through Use of Behavioral Change Theories*, 2017. \*Liberty University outstanding honors thesis award 2017.

Honors Thesis Chairman, Hannah Plasterer, *Multidisciplinary Approach to the Treatment of Bariatric Patients*, 2017.

Honors Thesis Chairman, Jessica Heidebrink, *Supplemental Training and Injury Prevention in the Sport of Ultra-Running*, 2018.

Honors Thesis Chairman, Abigail Richmond, *The Links Between Motivational Techniques, Successful Physical Therapists, and Successful Rehab Clinics*, 2019.

Honors Thesis Chairman, Karle Kotze, *The Pairing of Trigger Point Dry Needling with Rehabilitation Techniques*, 2019.

Honors Thesis Chairman, Samantha Yamasaki, *A Review of the Treatment and Prevention Options for Medial Tibial Stress Syndrome*, 2019.

Honors Thesis Committee, Juliana Bouton, *The Impact of Power Training on Balance and Visual Feedback Removal*, 2019.

Honors Thesis Committee, Joseph Valentini, *Communication Patterns Between Physicians and Physician Assistants*, 2020.

Honors Thesis Chairman, Timothy Leckrone, *The Application of Biomechanical Technology in Sports*, 2021.

Honors Thesis Chairman, Jesse Redding, *Hamstring and Quadriceps Strength Ratio in Collegiate Wrestlers*, 2022.

Honors Thesis Committee, Noah Owens, *An Overview of Nerve Flossing and Critical Analysis of its Efficacy for the Lower Body*, 2022.

Honors Thesis Committee, Kendal Huepper, *Therapeutic Exercise Programming for Nonspecific Low Back Pain*, 2022.

Honors Thesis Committee, Jordan Heckman, *The Effect of Running on the Onset and Development of Osteoarthritis*, 2023.

Honors Thesis Chair, Allyson Waller, *Developmental Coordination Disorder: An Overview of Motor Learning, Etiology, and Intervention Strategies*, 2023.

Honors Thesis Chair, Charis Brown, *Home Exercise Program Adherence in Physical Therapy: Application of the Transtheoretical Model*, 2023.

## **Graduate Research Mentoring: Master's Thesis Chair**

- Martin, C., Titcomb, D. A Functional Comparison of Three Forms of Exercise Utilized for Flexibility Enhancement: Reactive Neuromuscular Training vs Traditional Stretching Prescriptions, 2017.
- Feister, J., Titcomb, D. Evaluation of FMS Performance and Injury Visibility in NCAA Division I Football Players, 2018.
- Ray, T., Titcomb, D. The Effects of Aerobic Fatigue Testing (Beep Test) on Three-Dimensional Kinetics During Drop-Jump Landings, 2018.
- Clary, D., Titcomb, D. The Effects of Foam Rolling on Running Gait Patterns, 2018.
- Warr, L., Titcomb, D. Comparison of Functional Improvements in Parkinson's Disease Patients: The Effects of Treadmill vs. Free Walking Intervention, 2019.
- Lowell, R., Titcomb D. A Kinetic and Kinematic Comparison Between Two ACL injury Risk Screening Assessments: Modified LESS Test Versus Sudden Deceleration Test, 2019.
- Blackley, A., Titcomb, D. The Effects of Rearfoot Eversion Taping on 3D Foot and Ankle Kinematics During Treadmill Running, 2020.
- McCarty, A., Titcomb, D. Effects of Pre-Determined Barbell Hip Thrusting Surface Height on Motor Unit Recruitment and Activation Patterns, 2021.
- Martin, A.D., Titcomb, D. The Effects of Vestibular Exercises on Kinetic Measures of Balance in a Healthy Population, 2021.
- Antonio, M., Titcomb, D. Effects of Windmill versus Traditional Wall Ball Exercise Technique on Upper Body Muscular Fatigue during CrossFit Training, 2022.

### **Awards and Research Grants**

- **1994-1995** Academic Excellence Award in Sports Medicine, Old Dominion University Health, Physical Education, and Recreation Dept.
- 1995 Old Dominion University Academic Honors Research Grant (\$5,000): Effects of a Heel Lift on Selected Biomechanical Variables in Women with Mild Leg Length Inequalities.
- **2010** Liberty University, Center for Research and Scholarship Grant (\$7,100): Midfoot Plantar Pressure: A Comparison Between Subjects With and Without Chronic Pain.
- 2021 Liberty University, Center for Research and Scholarship Grant (\$660): The Effects of Postural Education or Corrective Exercise Intervention on the Craniovertebral Angle in Young Adults with Forward Head Posture.

#### **Research Abstracts**

Redondo, D., Graham, B, Dowling, E., & Titcomb, D. (1994). 558 Effects of a Simulated Mild Leg Length Discrepancy on Selected Kinematic and Metabolic Variables During Walking And Running. *Medicine and Science in Sports and Exercise*. 26(5), S99.

Titcomb, D., Redondo, D., Graham, B., & Dowling, E. (1995). Effects of a Heel Lift on Selected Biomechanical Variables in Women with Mild Leg Length Inequalities. *Medicine and Science in Sports and Exercise*. 27(5), S42.

Schoffstall, J., Titcomb, D., & Kilbourne, B. (2010). Electromyographic Response of the Abdominal Musculature to the Abdominal Crunch Exercise Utilizing the Hollowing Maneuver. *Medicine and Science in Sports and Exercise*, *42*(5), S207.

Titcomb, D. (2011). Midfoot Plantar Pressure: A Comparison Between Subjects With and Without Chronic Pain, *Medicine and Science in Sports and Exercise 43(5)*, S256.

Titcomb, D. Blais, M., & Lane, R. (2012) Use of Tekscan Matscan<sup>®</sup> to Detect Static Rearfoot Position Through Evaluation of Rearfoot Pressure. *Medicine and Science in Sports and Exercise*, 44(5), S713.

Fields, A. D., **Titcomb, D. A.** (2022). Relationships between anthropometric variables and impact forces in collegiate female runners: A pilot study: 53. *Medicine & Science in Sports & Exercise*, *54*(9S), 4. DOI: 10.1249/01.mss.0000875096.39771.ea

#### **Journal Publications**

Titcomb, D. A. (2022). The Effects of Postural Education or Corrective Exercise Intervention on the Craniovertebral Angle in Young Adults with Forward Head Posture (29066896). Available from ProQuest Dissertations & Theses Global. (2686245438).

Titcomb, D. A., Melton, B. F., Miyashita, T., & Bland. H. W. (2022). Evidence-Based Corrective Exercise Intervention for Forward Head Posture in Adolescents and Young Adults Without

Musculoskeletal Pathology: A Critically Appraised Topic. *Journal of Sport Rehabilitation*, 31(5), 640-644. https://doi.org/10.1123/jsr.2021-0381.

Schoffstall, J. E., Titcomb, D. A., & Kilbourne, B. F. (2010). Electromyographic Response of the Abdominal Musculature to Varying Abdominal Exercises. *Journal of Strength and Conditioning Research*, 24(12), 3422-3426.

### **Books/Course Manuals**

- Titcomb, D. A. (2022). Corrective strategies for the cervical spine. In R. Fahmy (Ed.), *NASM Essentials of corrective exercise training* (2<sup>nd</sup> ed., pp. 449-479). Jones & Bartlett Learning.
- Titcomb, D. A. (2016) Biomechanics Course Manual, Academx Publishing Services. ISBN: 978-1-68284-113-6.
- Titcomb, D. A. (2017) Biomechanics Course Manual (2<sup>nd</sup> ed.). Academx Publishing Services. ISBN: 978-1-68284-278-2.

#### **Invited Publications**

- Schoffstall, J.E. & Titcomb, D.A. (2020, March 27). The Making of a High-Quality Exercise Science Program. ACSM: Certification Blog. https://www.acsm.org/all-blog-posts/certification-blog/acsm-certified-blog/2020/03/27/the-making-of-a-high-quality-exercise-science-program
- Titcomb, D. A. (2020, June 4). How to Fix Forward Head Posture. NASM Blog. https://blog.nasm.org/fixing-forward-head-posture

#### **Presentations**

- 1995 Biomechanics Slide Presentation: Effects of a Heel Lift on Selected Biomechanical Variables in Women with Mild Leg Length Inequalities, American College of Sports Medicine National Meeting, Minneapolis, MN.
- **1997** *Myofascial Release,* Virginia Physical Therapy Association Tidewater District, Virginia Beach, VA.
- 2006 Physical Therapy for Temporomandibular Joint Disorders, Virginia Physical Therapy Association – Valley District Meeting. Jefferson College of Health Sciences, Roanoke, VA.
- **2010** Poster Presentation: *Electromyographic Response of the Abdominal Musculature to the Abdominal Crunch Exercise Utilizing the Hallowing Maneuver,* American College of Sports Medicine National Meeting, Baltimore, MD.
- 2011 Poster Presentation: Midfoot Plantar Pressure: A Comparison Between Subjects With

- and Without Chronic Pain, American College of Sports Medicine National Meeting, Denver, CO.
- **2011** Applied Exercise Science & Muscular Fitness/Flexibility Assessment. ACSM Exercise Physiologist Workshop. Lynchburg, VA.
- 2012 Poster Presentation: Use of Tekscan Matscan® to Detect Static Rearfoot Position Through Evaluation of Rearfoot Pressure, American College of Sports Medicine National Meeting, San Francisco, CA.
- **2012-Present** Applied Exercise Science & Muscular Fitness/Flexibility Assessment. ACSM Exercise Physiologist Workshop. Lynchburg, VA. Each fall and spring semester.
- **2012-2013** Human Behavior and Counseling. ACSM Exercise Physiologist Workshop. Lynchburg, VA.
- 2013 Poster Presentation: *Electromyographic Comparison of the Pushup and the Ring Pushup*, South East American College of Sports Medicine Meeting, Greenville, SC.
- 2013 Poster Presentation: *Electromyographic Comparison of the PVC Pushup and the Perfect Pushup* ®, South East American College of Sports Medicine Meeting, Greenville, SC.
- 2013 Poster Presentation: *The Effects of Stretching & Warm-up on Vertical Jump*, South East American College of Sports Medicine Meeting, Greenville, SC.
- 2013 Poster Presentation: Electromyographic Comparison of the Abdominal Musculature Between the V-up and V-up Variations Using Commercially Available Equipment. American College of Sports Medicine National Meeting, Indianapolis, IN.
- **2013** Program Administration, Safety, Emergency Procedures. ACSM Exercise Physiologist Workshop. Lynchburg, VA.
- **2014, 2015, 2017** Physical Therapy for TMJ Disorders. Wingate University Doctor of Physical Therapy Program. Wingate, NC.
- 2015 Poster Presentation: A Comparison of Electromyographic Responses of the Hamstring Musculature During Seated vs. Prone Hamstring Curls. Southeast American College of Sports Medicine Meeting, Jacksonville, FL.
- 2018 Poster Presentation: The Effect of Barefoot Running Using Two Running Styles on Lower Extremity Joint Reaction Forces. J.M. Rogers, D.A. Titcomb. Southeast American College of Sports Medicine Meeting, Chattanooga, TN.
- 2023 Poster Presentation: The Effects of Education or Corrective Exercise on Forward Head Posture A Randomized Controlled Trial. D. Titcomb¹, B. Melton², T. Miyashita³, H. Bland⁴. Southeast American College of Sports Medicine Annual Meeting, Greenville, SC, Feb. 24, 2023. ¹Liberty University, ¹Concordia University Chicago, ²Georgia Southern University, ³Concordia University Chicago, ⁴Georgia Southern University

### **Guest Lectures**

- Pathophysiology and Mechanics of the Shoulder, Lynchburg General Hospital, Lynchburg, VA.
- 1999 Rehabilitation of the Shoulder, Guest Lecture with Joseph Wombwell, MD. Virginia Baptist Hospital, Lynchburg, VA.
- 2000 Physical Rehabilitation, Virginia Baptist Hospital, Lynchburg, VA.
- 2001 Physical Therapy Intervention for Chronic Pain: Transcutaneous Electrical Nerve Stimulation (TENS), Women's Health Forum, with Physiatrist Dr. Scott Tyree, Lynchburg, VA.
- *Physical Therapy for Ankle Injuries*, Centra Health Family Practice Residency, Lynchburg, VA.
- How to Transfer Patients Safely: Optimal Body Mechanics, Lynchburg General Hospital, Lynchburg, VA.
- *Injury Prevention and Exercise Prescription for the Older Adult.* Courtside Athletic Club, Lynchburg, VA.
- *Physical Therapy for Temporomandibular Joint Disorders*, Lynchburg Dental Society, Oakwood Country Club, Lynchburg, VA.
- *Physical Therapy for Temporomandibular Joint Disorders*, Lynchburg Dental Hygienist Association, Lynchburg, VA.
- *Sports Nutrition for Wrestlers,* Liberty University Wrestling Team, Liberty University, Lynchburg, VA.
- **2017** Practical Interventions for Patients with TMD and Facial Pain. Southside Rural Dental Study Club. Farmville, VA.
- Bridging the Gaps Between Physicians, PTs, and Fitness Professionals For Improved Patient Care. Liberty University College of Osteopathic Medicine. Lynchburg, VA.
- *Worksite Ergonomics, Posture, and Pain Prevention*, Thomas Road Baptist Church TRFit Program, Lynchburg, VA.
- 2019 Bridging the Gaps Between Physicians, PTs, and Fitness Professionals For Improved Patient Care. Liberty University College of Osteopathic Medicine. Lynchburg, VA.

### **Conferences Attended**

- Southeast American College of Sports Medicine Meeting, Norfolk, VA.
- American College of Sports Medicine National Meeting, Minneapolis, MN.

1997	Virginia Physical Therapy Association Annual Meeting, Lynchburg, VA.
1998	Virginia Physical Therapy Association Annual Meeting, Roanoke, VA.
2000	Virginia Physical Therapy Association Annual Meeting, Richmond, VA.
2007	American Academy of Orofacial Pain (AAOP) National Meeting, Philadelphia, PA.
2010	American College of Sports Medicine National Meeting, Baltimore, MD.
2011	Southeast American College of Sports Medicine Meeting, Greenville, SC
2011	American College of Sports Medicine National Meeting, Denver, CO
2012	Southeast American College of Sports Medicine Meeting, Jacksonville, FL
2012	American College of Sports Medicine National Meeting, San Francisco, CA
2013	Southeast American College of Sports Medicine Meeting, Greenville, SC
2013	American College of Sports Medicine National Meeting, Indianapolis, IN
2014	American College of Sports Medicine National Meeting, Orlando, FL
2014	World Congress of Biomechanics Scientific Meeting, Boston, MA
2015	Southeast American College of Sports Medicine Meeting, Jacksonville, FL
2015	American College of Sports Medicine National Meeting, San Diego, CA
2016	Southeast American College of Sports Medicine Meeting, Greenville, SC
2016	American Society of Biomechanics Annual Meeting, Raleigh, NC
2017	Southeast American College of Sports Medicine Meeting, Greenville, SC
2018	Southeast American College of Sports Medicine Meeting, Chattanooga, TN
2018	American Society of Biomechanics Annual Meeting, Rochester, MN
2019	Southeast American College of Sports Medicine Meeting, Greenville, SC
2020	Southeast American College of Sports Medicine Meeting, Jacksonville, FL
2021	Southeast American College of Sports Medicine, Virtual Meeting
2022	Southeast American College of Sports Medicine Meeting, Greenville, SC
2023	Southeast American College of Sports Medicine Meeting, Greenville, SC

## **Membership in Professional Organizations**

American College of Sports Medicine (ACSM)

Southeast American College of Sports Medicine (SEACSM)

American Physical Therapy Association (APTA)

Virginia Physical Therapy Association (VPTA)

American Society of Biomechanics (ASB)

Christian Medical and Dental Association (CMDA)

### **Departmental and University Service**

2010-2014	Liberty University Faculty Senate
2010-2012	Health Science Committee
2012-2014	Liberty University Faculty Senate Executive Committee- Member at Large
2012-2022	Physical therapist for Liberty University Club Sports Athletes
2012-2015	Development/set-up of the Biomechanics & Motion Analysis Laboratory
2014-2017	School of Health Sciences Faculty Promotion Committee member
2014	Oversaw continuing accreditation review and site visit for program accreditation: Committee on Accreditation of Allied Health Education Programs (CAAHEP)
2014	Liberty University Exercise Science Program Review (SACS)
2016-present	Faculty representative for the Pre-Physical Therapy Club
2018-2021	Faculty Shepherd, LU School of Health Sciences
2021	Liberty University Exercise Science Program Review (SACS)

Developed residential courses: EXSC 351 Biomechanics Lab, EXSC 550 Advanced Biomechanical Analysis, EXSC 551 Advanced Biomechanical Analysis Lab

Developed LUO courses: HLTH 211 Applied Anatomy and Physiology I for Associate Programs, HLTH 212 Applied Anatomy and Physiology II for Associate Programs, HLTH 221 Applied Human Anatomy and Physiology II, HLTH 222 Applied Human Anatomy and Physiology II, EXSC 550 Advanced Biomechanical Analysis

## **Community Involvement**

2000-2008 Coordinator of Physical Therapy Services, Free Clinic of Central Virginia,

Lynchburg, VA. Organized and developed a volunteer outpatient physical therapy program at the clinic to provide pro-bono PT

services to the local community.

2011-2012 Volunteer, Freedom 4/24 ministries

## **Personal**

Intervarsity Christian Fellowship, Old Dominion University, 1993-1997

Old Dominion University Wrestling Team, 1990-1992

Eagle Scout, Boy Scouts of America, 1990