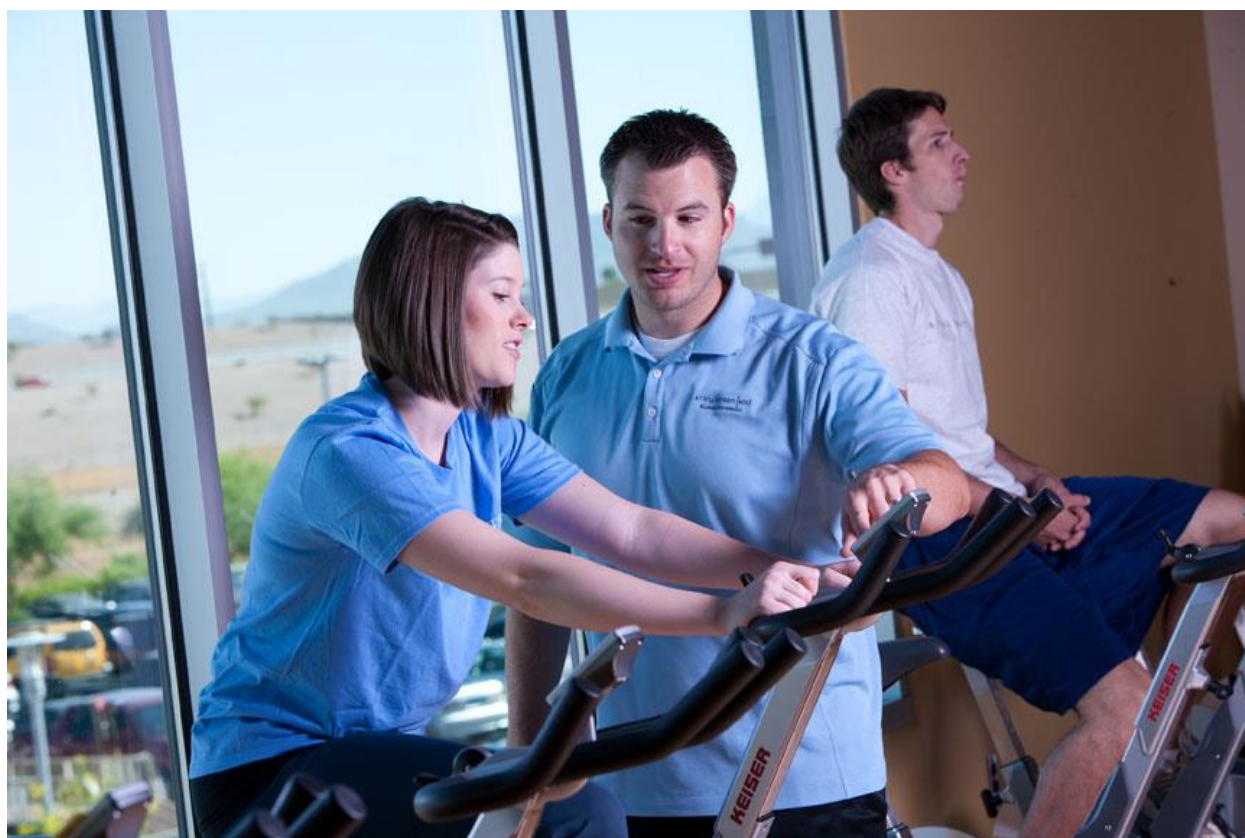


Master of Science in Kinesiology

program guide



A.T. STILL UNIVERSITY
COLLEGE OF GRADUATE HEALTH STUDIES

ATSU

Fall Block 2, 2015

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From the Chair

Welcome to the Kinesiology program! We are excited to have you join us here at A.T. Still University and look forward to another exciting year!

We have put together this site to allow access to information, documents and materials while we are working on getting your Student IDs and Passwords, which will then give you full access to the classes and other resources needed throughout the program.

This website will also be a great reference for you throughout the program, coupled with the ATSU Portal.

Please take a moment to look over the information so you will know what to expect in the coming days.

Thank you!

Tracie Rogers, PhD

Program Chair, Kinesiology MS Program

ATSU Mission Statement

A.T. Still University of Health Sciences serves as a learning-centered university dedicated to preparing highly competent professionals through innovative academic programs with a commitment to continue its osteopathic heritage and focus on whole person healthcare, scholarship, community health, interprofessional education, diversity, and underserved populations

College of Graduate Health Studies Mission

The College of Graduate Health Studies is a student-centered online school, focused on academic excellence and innovation. We are dedicated to preparing leaders in the health professions for socially responsible practice, policy, and research to improve prevention, wellness, and access to care.

College of Graduate Health Studies Vision

The College will be the preeminent online school for leaders in the health professions. We will provide a contemporary and flexible curriculum that empowers our students to translate knowledge to meet the growing needs of domestic and global health and wellness.

College of Graduate Health Studies Values

Leadership: We value leadership development for our students, faculty, and staff and encourage participation in community and professional service.

Integrity: We value the highest ethical principles of fairness and honesty in all of our interactions.

Scholarship: We value critical thinking and the generation of ideas through innovation and analysis.

Diversity: We value differences among people and their personal and professional perspectives.

Interprofessional education: We value the combined contributions of our educational community and work to achieve an environment of teamwork and collaboration.

Innovation: We value a continual and aggressive push to develop new and efficient mechanisms for learning, teaching, and technological delivery.

Program overview

The Master of Science in Kinesiology (MSK)degree is a cutting-edge, post-professional degree program designed to assist practicing health and fitness professionals in the development of comprehensive knowledge of human movement science, functional anatomy, physiology and kinesiology, as well as functional assessment, exercise program design, program adherence and lifestyle change.

Completion of this degree will serve as a valuable source of credibility to sports professionals, club owners, coaches, fitness department managers, and health professionals. It will also assist sports medicine, health, and exercise professionals in enhancing their knowledge, skills, and abilities relating to the design and maintenance of exercise programs for various populations.

Although the majority of the MSK. program is completed online, the program includes a four-day residency course that includes presentations and lab-based interactions between students, faculty, and leading professionals in health and fitness. This course is required for graduation and will be offered annually during the summer quarter.

Requirements for Admission

1. Bachelor's degree or higher from an accredited university. Applicants who graduated from a university outside the United States must provide a degree equivalency evaluation.
2. Must be a health, wellness, sport, or fitness professional with at least two years of professional experience or be a licensed or certified fitness / personal training professional with an NCCA accredited certification (ACE, ACSM, IFPA, NASM, NCSF, NESTA, NFPT, NSCA, Cooper Institute), or healthcare professional (ATC, PT, DC, OT, PA, RN, RD, etc.).
3. Completed admissions application.
4. Official transcript from degree-granting institution. For students using VA benefits transcripts for all institutions attended are required.
5. Non-refundable application fee submitted with application.
6. Minimum Cumulative Grade Point Average (CGPA) of 3.0 (4.0 scale) at the qualifying degree institution. *Candidates with a GPA below 3.0 may apply by completing an additional essay during the application process to explain factors that precipitated a student's low GPA and how and why a student will be successful in a program.* Students who did not attend an institution where a GPA system was used are required to petition the program chair.
7. A current resume.
8. Completion of essay and two professional references.
9. Test of English as a Foreign Language (TOEFL) for applicants when English is not their first language. The Computer Based Test (CBT), Internet Based Test (iBT), or the Paper Based Test (PBT) are accepted. Students who have graduated from a regionally accredited four year university or college in the United States are exempt from this requirement.

The following are the minimum required score based on test type:

- CBT - minimum total score of 213
Min. 22/Reading Skills section | ›Min. 26/Writing Skills section
- iBT - minimum total score of 80
Min. 22/Reading Skills section | ›Min. 24/Writing Skills section
- PBT - minimum total score of 550
Min. 57/Reading Skills section | ›Min. 61/Writing Skills section

10. Applicants are selected by an admission committee.
11. Completion of background check, using a vendor selected by ATSU. CGHS requires criminal background checks on degree seeking students to ensure the safety of patients and employees. The checks are conducted by an ATSU selected vendor. The student will pay the cost of the criminal background check directly to the vendor. Failure to comply with this mandate will result in denial to matriculate. Applicants who fail to disclose anything on their application that is returned on their background check report will have that finding reviewed by an University Official.

In the event the required background check with the ATSU vendor occurred within the last 12 months, another background check is not required. Students currently enrolled in another ATSU program and matriculating into a CGHS program are not required to complete a background check.

12. Technology requirements as outlined at: <https://sites.google.com/a/atsu.edu/its/student-resources/student-technology-requirements>

Application Information

Applications are available online at www.atsu.edu, or you may contact an online enrollment counselor at 877.469.2878 or onlineinquiry@atsu.edu.

Tuition and Expenses

Tuition\$ 491 per credit hour*
 Technology and Resource Fee.....\$150 per quarter*
 Application fee..... \$70, non-refundable*

CGHS tuition rates are competitive.

Tuition is to be paid using the appropriate payment option (or all financial aid award letter steps completed for the appropriate term) 14 calendar days prior to the first day of class. Students are responsible for the purchase of their Internet service, computer hardware, and software. Contact your admissions representative at 877.626.5577 or onlineinquiry@atsu.edu for more information.*All fees are subject to change.

Financial Assistance

Federal Financial Aid is available to students who qualify. Scholarship and financial assistance opportunities are listed on the CGHS web page at www.atsu.edu/financial_aid. Veterans Administration (VA) benefits may also be used. For additional information please visit www.atsu.edu/registrar/veterans_benefits.htm.

Accreditation

A.T. Still University is accredited by the Higher Learning Commission, 230 S. LaSalle St.; Ste. 7-500; Chicago, IL 60604, phone: 800.621.7440.

Master of Science in Kinesiology Curriculum

Evidence-Based Practice and Research Methods*: The objective of this course is to introduce the kinesiology professional to the concepts of evidence-based practice. Students will learn how to access high quality literature, integrate best research with clinical expertise and client values for optimum service, and will be encouraged to participate in learning and research activities to the extent feasible. The course will provide the kinesiology professional with graduate level knowledge and skills related to appropriate research methods and study design, conducting a literature review, creating a research proposal, the role of institutional review for human subjects' protection, and evaluation of the research literature. Emphasis will be placed upon critical appraisal and application of the kinesiology literature.

**Must be taken in first block. Can be taken with Motor Control.*

Motor Control:** This course provides a foundation for understanding the current principles, theoretical perspectives, and research related to motor control and learning, and how different factors influence learning and performance. Neural and mechanical mechanisms underlying motor behavior and the variables influencing motor control and learning will be addressed, with an emphasis on the application of theoretical perspectives, principles, and research to instructional and practical settings.

***Must be taken in first block (if taking 2 classes per block) or second block (if taking 1 class per block). Can be taken with Evidence-Based Practice and Research Methods.*

Exercise Science: The objective of this course is to explore the physiological principles of exercise. Specific topics include the functions of the cardiovascular, pulmonary, neuromuscular and neuroendocrine systems, energy expenditure and bioenergetics, and body composition.

Functional Anatomy: This course is designed to enhance the student's knowledge and awareness of human anatomy, specifically as its structure relates to function of the musculoskeletal system and human movement. Following this course, the student should be able to describe, discuss, recognize, and evaluate musculoskeletal structure and function from an anatomical perspective in the context of clinical practice.

Functional Biomechanics: The objective of this course is to study the biomechanical properties of joint structures and connective tissues, including histology and morphology, with particular emphasis on sport and exercise movements. Biomechanics of musculotendinous structures, joint capsules, ligaments, peripheral nerves, bones, and articular cartilage will be presented.

Exercise and Sport Related Nutrition: The objective of this course is to learn how to facilitate and educate clients about general nutrition recommendations to maintain health, alter body composition, and improve performance. The course will focus on providing sound advice to clients regarding the nutritional requirements for general health, lean mass gain, body fat loss, anaerobic athletic performance, and aerobic athletic performance.

Summer Institute: The Institute will be comprised of one week of intensive training held on the campus in Mesa, Arizona. Students will participate in lecture/lab situations covering program related information. Guest speakers, representing leaders in the field of exercise science and human movement, will be recruited to present their work to students as well as to interact with attendees. This is a one-time requirement for completion of the degree; however, students are welcome to enroll each year.

Advanced Fitness Nutrition: This course will present advanced concepts in nutritional requirements for optimal health and sports performance. Emphasis will be placed on bioenergetics and the cellular mechanisms of emerging supplements and ergogenic nutrients. This course will help the exercise professional learn about current research in the areas of macronutrient ratio manipulation, nutrition for exercise performance, nutritional considerations in recovery, and the physiological effects of metabolic dysregulations, such as obesity.

Advanced Exercise Prescription: This course will provide an overview of comprehensive goal based exercise program design for different populations. The objective of this course is to gain knowledge and skills for building complete exercise programs that are unique to client needs, abilities, and goals, including performing and incorporating subjective and objective assessment results and appropriate medical history information. The integration of exercise principles and behavioral techniques that motivate the participant to be compliant will be emphasized. This course will focus on integrated training and injury prevention techniques through the interdependent relationship of flexibility, core, balance, power, speed, and strength.

Current Topics in Human Movement Science: This course will cover current, innovative, and controversial topics in the field of health and human performance (HHP). The purpose of this course is to increase student knowledge and awareness of currently-popular topics related to fitness and health. An overview of liability issues and new technologies in HHP professions will be discussed. Physiological mechanisms of some topics will be explored such as heart rate variability, dietary choices, and body composition. In addition, topics related to program design, such as controversies over CrossFit, will be explored.

Professional Practice & Responsibility: The objective of this course is to ensure that human movement professionals maintain competence in educational and regulatory issues. Topics include compliance with regulatory standards, professional practice standards and ethics, education of the public, preservation of the safety and welfare of the public, and maintenance of competence through continuing education.

Specialized Tracks

Sports Conditioning Track

Measurement of Sports Fitness: This course will cover sport-specific fitness and performance testing. The objective of the course is to enable the student to develop a sport-specific, age-appropriate testing battery, reliably conduct the testing, and correctly interpret the results.

Speed, Agility, and Quickness: This course will cover the physiological basis for speed, agility, and quickness as well as practical methods for developing such qualities among athletes of various developmental abilities. Focus will be put on sport-specific training modes.

Muscular Fitness Development: This course is designed to enhance the knowledge of muscular performance capabilities, differentiate between muscular functions as it relates to sport performance, and develop training programs to enhance specific performance profiles.

The Science and Practice of Metabolic Conditioning: This course will cover the physiology of energy production as it relates to performance in various sporting events. Causes of fatigue will be addressed along with practical methods for developing sport-specific metabolic fitness.

Exercise and Sport Psychology Track

Psychology, Physical Activity, and Health: This course will cover principles of health psychology and behavior change related to physical activity adoption, participation, and adherence. The objective of the course is for health professionals to develop the knowledge and skills to understand the importance of implementing behavior change strategies as part of all physical activity programs and to be able to develop and implement such strategies. Techniques for incorporating behavior change strategies into fitness programming and health promotion will be taught.

Applied Sport Psychology: This course will examine psychological theories and techniques applied to a sport to enhance the performance and personal growth of athletes and coaches. The key principles of performance enhancement that are directly applicable to all performance endeavors, including sport, business, and persona will be covered. The objective of the course is to understand theory and to teach application of the fundamental psychological skills that are related to peak performance.

Exercise and Mental Health: This course will cover the relationships between mental health conditions and exercise, including depression, anxiety, self-esteem, stress, and mood. The primary objective is for health and fitness professionals to acquire an understanding of theories, methods, and experimental literature concerning psychological factors related to exercise participation and well-being. Additionally, the practical importance and application of the current research literature will be discussed along with methods to educate the general population on mental health and exercise relationships

Principles of Adherence and Motivation: This course will examine the theories of motivation and exercise behavior in relation to the problem of exercise participation and adherence. The primary objective of this course is for the student to develop an understanding of the role of motivation and the determinants and consequences of motivation in the exercise context. This course will provide an in-depth understanding of the role of the fitness professional in building motivation and of how motivation can be used as part of an exercise program to help maximize program success and long-term adherence.

Geriatric Exercise Science Track

Psychosocial Dimensions of Aging: This course is designed to enhance the student's knowledge and understanding of aging and related psychological and social aspects, including concepts and theories of aging, demographic factors of aging, mental health, stress and coping, social dynamics, religiosity and spirituality, quality of life, models of successful aging, and death and dying. An exploration of the role of physical activity in psychosocial health and well-being will be interwoven, where applicable, in the study of these various aspects of aging.

Exercise Prescription for Older Adults: A study of fitness instruction and programming for older adults, including importance of physical activity for older adults, pre-program assessment, prescription for various modes of exercise, and considerations for older adults with specific chronic disease conditions.

Physical Dimensions of Aging: A study of the physical changes that occur with aging including its impact on the various body systems as well as on motor control and physical functioning. In addition, a thorough examination of the impact of regular physical activity on the physical health of older adults will be addressed.

Motivational Strategies for Physical Activity Among Older Adults: A study of the methods for helping people to develop and maintain physically active lifestyles with specific emphasis on older adults. Theories of health behavior change will be discussed with practical applications for individuals, groups, and communities

Corrective Exercise & Orthopedic Rehabilitation Track

Human Movement Dysfunction: This course is designed to enhance the student's knowledge and awareness of concepts related to fundamental movement necessary for optimal function and performance. Following this course, the student should be able to discuss, recognize, and evaluate factors that contribute to movement dysfunction.

Functional Assessment of Movement Patterns: Movement dysfunction and movement patterns provide the theoretical foundation to examine functional movement assessments. Focus will be on the critical evaluation of common movement assessment approaches used in injury prevention, post-rehabilitation, and corrective exercise.

Post Rehabilitation Exercise: The objective of this course is to learn how to design and apply training programs for individuals who are transitioning from a rehabilitative setting to a more traditional exercise environment. This course will provide an overview to a systematic approach for post-rehabilitation exercise. This course will focus on reducing the risk of injury while training and performing activities of daily living along with identifying and applying strategies for program application, communicating goals and rationale, and correlating assessment outcomes with individualized programs.

Corrective Exercise Programming: This course will develop the knowledge and skill for the implementation of corrective exercise theories and models to promote improved human movement and function.

Specialized Program Options (45 credit hours)

Students in these program options do not take Advanced Nutrition, Current Topics, or Advanced Exercise Prescription

1. Dual Track Option: Students will select and enroll in two of the specialized tracks.
2. Thesis Option (requires additional application): This option is for students who want to pursue a terminal degree or work in the research field.

Administration



Don Altman, DDS, DHSc , MPH, MBA, MA
Dean, College of Graduate Health Studies
daltman@atsu.edu

Don Altman, DDS, DHSc, MPH, MBA, MA holds a dental degree as well as master's degrees in public health, business administration, and bioethics. He also has a doctorate in Health Sciences. He is a diplomat of the American Board of Dental Public Health and has worked in the dental public health field for more than 31 years.

Dr. Altman has taught dentists and dental hygienists in the classroom for many years and has been teaching online since 2006. He has taken a general MPH curriculum and developed a program for individuals interested in dental public health. Dr. Altman is the Dean of the College of Graduate Health Studies, and is also a professor and Director of Public Health and Research at ATSU's Arizona School of Dentistry & Oral Health. Prior to his role as Dean, Dr. Altman served as Chair, Department of Public Health and program chair for the dental MPH program.

He previously worked for local and state governments as well as private industry. His areas of interest include professionalism and ethics, community-based dental programs, leadership for the dental professional, and quality assurance.



Katherine M. Adler, DHA, FACHE
Associate Professor
Associate Dean of Academic Success and Assessment
kadler@atsu.edu

Katherine Adler, DHA, FACHE, is the Associate Dean for Assessment and Student Success at the College of Graduate Health Studies. She began teaching for the college in 2006, became the program chair for Health Administration in 2009, program chair for Public Health in 2010, and became Associate Dean in 2012.

Doctor Adler holds a Doctorate in Healthcare Administration and Leadership from the Medical University of South Carolina. She has over 25 years of varied experience in the not-for-profit health care industry, spending the bulk of her career working at safety-net hospitals in urban Detroit.

During her tenure in administrative roles, Dr. Adler worked closely with physicians in medicine and surgery, having direct oversight over those departments and subspecialties, and gained extensive knowledge in public health, epidemiology, social and behavioral sciences and environmental health sciences. Through her formal training and work, Dr. Adler has a strong background in health services administration as well as public health. She is a patient advocate, understands the plight of the underserved and underinsured and has worked to incorporate patient centered care into the curriculum with the understanding that prevention and whole person care are the key to a healthy community and society.



Tracie Rogers, PhD

Program Chair, Master of Science in Kinesiology

trogers@atsu.edu

Dr. Rogers has a combination of academic and applied experience in the exercise field. She received her bachelor of science degree in psychology from the University of Arizona and went on to earn her PhD in Kinesiology, with a focus on sport and exercise psychology, from Arizona State University, in 2003. Dr. Rogers is a consultant and faculty member for the American Council on Exercise where she creates courses and serves as a subject matter expert for curriculum development and continued education.

Dr. Rogers speaks nationally to fitness professionals and writes extensively on the role of the personal trainer in triggering lasting behavior change and on the creation of exercise environments that promote long term adherence. In addition, Dr. Rogers works with athletes and teams, helping them realize the control they have over their athletic experience and performance. Dr. Rogers is passionate about getting people moving and helping them incorporate physical activity into their daily lives.