New Program Proposal
Master of Science in Exercise and Sports Science
Emphasis in Strength and Conditioning
University of South Carolina Aiken

WORKFORCE DEVELOPMENT:
Is this program recognized as a **PRIORITY OCCUPATION** according to the South Carolina Unified State Plan for Education and Workforce Development for 2024-2025? If so, please select the appropriate career cluster.

X Yes

☐ No

CAREER CLUSTER:

☐ Agriculture, Food, & Natural Resources
☐ Architecture & Construction
☐ Arts, Audio/Video Technology, & Communications &Administration
☐ Business Management
☐ Education & Training
☐ Finance
☐ Government & Public Administration
X Health Science
☐ Hospitality & Tourism
☐ Human Services
☐ Information Technology
☐ Law, Public Safety, Corrections, & Security
☐ Manufacturing
☐ Marketing
☐ Science, Technology, Engineering, & Mathematics
☐ Transportation, Distribution, & Logistics

A. SUMMARY

University of South Carolina Aiken proposes a new Master of Science in Exercise and Sports Science with an emphasis in Strength and Conditioning program. The program is formulated to deliver an online master's degree in Exercise and Sports Science with an emphasis in Strength and Conditioning.
The program will require 10 new courses and the hiring of no new faculty. There are currently no similar programs within the state. Program requirements include a minimum of 30 credits. The program fulfills the REACH Act requirement and received all institutional approvals on 5.14.25. It will be delivered online and will begin in Fall 2026.

B. UNIVERSITY ENROLLMENT

USC AIKEN STUDENT AND PROGRAM DATA	
Total Number of Students	3944
Percentage of In-State Students	85.16%
Percentage of Out-of-State Students	11.31%
Percentage of Out-of-Country Students	3.53%
Number of Approved Programs in 10 Years (2013 to 2024)	19
Number of Terminated Programs in 10 Years (2013 to 2024)	7

C. ENROLLMENT PROJECTIONS

USC Aiken MS in EXSC Projected Enrollment					
Major	**Fa 2026**	**Fa 2027**	**Fa 2028**	**Fa 2029**	**Fa 2030**
MS in EXSC	7	14	21	28	35

Based on USC Aiken's historical Exercise and Sports Science program enrollment, it is conservatively estimated that the MS program will enroll 35 students by year 5 of the offering. That equates to a minimum of about 14 students per academic year. A projection for the number of MS in Exercise and Sports Science students enrolled each year is provided above.

D. INDUSTRY-RELATED OCCUPATIONAL WAGES AND PROJECTIONS IN SOUTH CAROLINA

Strength and Conditioning Professional Demand (National and State)			
Discipline	**2023 Positions**	**2033 Positions (est)**	**2023 Median Salary**
S and C Professionals (US)	307,100	334,000	$45,910
S and C Professionals (SC)	3,460	3,771	$56,460
Estimates assume a 9% increase in S and C professional positions over the next ten years. All median salary figures are from BLS: https://www.bls.gov/ooh/entertainment-and-sports/coaches-and-scouts.htmtab-1			

Summary

The University of South Carolina Aiken appeals for approval to offer a program leading to a Master of Science in Exercise and Sports Science with an emphasis in Strength and Conditioning, to be implemented in Fall 2026 through 100% online delivery. The full program proposal and supplemental content is provided.

Recommendation

The staff recommends the Committee on Academic Affairs and Licensing favorably recommend to the Commission the program leading to the Master of Science in Exercise and Sports Science with an emphasis in Strength and Conditioning to be implemented in the Fall of 2026.

University of South Carolina Aiken and Program Data

The student data in the following table was taken from https://www.collegefactual.com/colleges/university-of-south-carolina-aiken/student-life/diversity/.

USC AIKEN STUDENT AND PROGRAM DATA	
Total Number of Students	3944
Percentage of In-State Students	85.16%
Percentage of Out-of-State Students	11.31%
Percentage of Out-of-Country Students	3.53%
Number of Approved Programs in 10 Years (2013 to 2024)	19

Number of Terminated Programs in 10 Years (2013 to 2024)	7

Industry Related Occupational Wages and Projections in South Carolina

As shown in the table below, the median Strength and Conditioning (S and C) professional salaries in the United States, South Carolina and Central Savannah River Area (CSRA).

Strength and Conditioning Professional Demand (National and State)			
Discipline	**2023 Positions**	**2033 Positions (est)**	**2023 Median Salary**
S and C Professionals (US)	307,100	334,000	$45,910
S and C Professionals (SC)	3,460	3,771	$56,460
Estimates assume a 9% increase in S and C professional positions over the next ten years. All median salary figures are from BLS: https://www.bls.gov/ooh/entertainment-and-sports/coaches-and-scouts.htmtab-1			

New Program Proposal Form

Name of Institution: **University of South Carolina Aiken**

Name of Program (include degree designation and all concentrations, options, or tracks): **Master of Science in Exercise and Sports Science with an emphasis in Strength and Conditioning**

Program Designation:

☐ Associate's Degree ☒ Master's Degree
☐ Bachelor's Degree: 4 Year ☐ Specialist
☐ Bachelor's Degree: 5 Year ☐ Doctoral Degree: Research/Scholarship (e.g., PhD and DMA)
☐ Doctoral Degree: Professional Practice (e.g., Ed.D., D.N.P., J.D., Pharm D., and M.D.)

Consider the program for supplemental Palmetto Fellows and LIFE Scholarship awards?

☐ Yes
☒ No

Estimated Date of Implementation: Fall 2026
CIP Code: 31.0505
Delivery Site(s): 50801
Delivery Mode:

☐ Traditional/face-to-face
select if less than 25% online

☒ Distance Education
☒ 100% online
☐ Blended/hybrid (50% or more online)
☐ Blended/hybrid (25-49% online)
☐ Other distance education (explain if selected)

Program Contact Information (name, title, telephone number, and email address):

Dr. Andrew Hatchett
Chair and Associate Professor of Exercise and Sports Science
471 University Parkway, Aiken, SC 29801
andrewhat@usca.edu
(803) 641-3682

Institutional Approvals and Dates of Approval (include department through Provost/Chief Academic Officer, President, and Board of Trustees approval):

1. Department: 2.11.25
2. College Counsel: 2.14.25
3. C&C: 2.26.25
4. UPC: 4.14.25
5. Faculty Assembly: 4.29.25
6. Provost: 5.14.25
7. Chancellor, USC Aiken: 5.14.25

Background Information

State the nature and purpose of the proposed program, including target audience, centrality to institutional mission, and relation to the strategic plan.

The University of South Carolina Aiken, after consultation with local and regional stakeholders in health, fitness, and sports performance, proposes the establishment of a Master of Science degree in Exercise and Sports Science with an emphasis in Strength and Conditioning. This program is designed to prepare graduates with the knowledge and skills necessary to develop, implement, and evaluate advanced strength and conditioning programs for athletic and general populations, aligning with the Central Savannah River Area's needs in sports performance, fitness, and wellness industries.

Through a rigorous and applied curriculum that addresses current and emerging trends in exercise science and strength and conditioning, students in this program will gain a comprehensive understanding of biomechanics, exercise physiology, performance analytics, and program design. Additionally, they will engage in practical applications that include research, testing, and implementation of evidence-based training methodologies for diverse populations. This hands-on approach leverages the expertise and research backgrounds of USC Aiken's Exercise and Sports Science faculty and staff at a university committed to excellence in graduate education.

This integration ensures that graduates of the Master of Science program are fully prepared to excel in professional roles, whether in collegiate athletics, private training facilities, or research and development settings, and are ready to contribute meaningfully to the field of strength and conditioning upon graduation.

USC AIKEN Mission Statement
"*The University of South Carolina Aiken is a regional public comprehensive university that cultivates a diverse population of engaged citizens who provide lifelong contributions in their careers and communities. Our dedicated faculty, staff, and industry partners guide undergraduate and graduate students through a transformative educational journey that uses engaged, accessible teaching and learning practices to blend the liberal arts, sciences, and professional disciplines with research and experiential opportunities that are aligned with economic and societal needs. We are a* ***center for innovation*** *that serves the region through* ***entrepreneurial partnerships****, public service, community leadership,* ***relevant research****, educational outreach, the visual and performing arts, and intercollegiate athletics.*"

Key points from the Mission Statement for the proposed Master of Science in Exercise and Sports Science degree are the emphasis on ***center for innovation*** with the online delivery and emphasis in Strength and Conditioning, ***entrepreneurial partnerships*** through the leveraging of relationships with services in need of professionals with advanced degrees (Middle and High Schools, Colleges and Universities, private industry and military entities), and ***relevant research*** (unique to the strength and conditioning profession – research on individual athletes and programs is conducted daily). USC Aiken's Exercise and Sports Science program has been actively engaged with local businesses in these areas since its inception. With a strong history of placing our graduates in other graduate programs and professional practice across the country.

USC AIKEN Vision Statement
"To create a campus community that values each individual, serves as a **vibrant hub of activity** in health, fitness, and sports performance in our region, **partners with organizations and industries** to address societal and economic challenges, and transforms graduate students into skilled and engaged professionals in the field of strength and conditioning."

Key points from the vision statement for the proposed Master of Science in Exercise and Sport Science program are the emphasis on being a vibrant hub of activity and fostering partnerships with organizations and industry. USC Aiken's exercise and sports science program has fulfilled, and will continue to fulfill, these roles through initiatives such as faculty-led research projects, student internships, practical experiences, and collaborations with local, regional, and national fitness, athletic, and healthcare organizations. These opportunities prepare graduates to contribute meaningfully to the strength and conditioning field while addressing local, regional, and national demands for skilled professionals.

Target Audience
The target audience consists primarily of in-state and out-of-state college graduates from programs related to Exercise and Sports Science or those with an appropriate amount of practical experience in the field of strength and conditioning. A minimum of 20 students are expected to enroll by the fifth year of the program (see Section 7 for supporting details). The courses in the program will be delivered through 100% online instruction.

Assessment of Need

Provide an assessment of the need for the program for the institution, the state, the region, and beyond, if applicable.

South Carolina currently lacks an online Master of Science (M.S.) in Exercise and Sports Science with an emphasis in Strength and Conditioning, despite the increasing demand for qualified strength and conditioning professionals, movement-focused performance specialists, and sports performance coaches at both the state and national levels. Establishing such a program would fill a critical educational and professional gap in the Central Savannah River Area (CSRA), the state of South Carolina, and the broader Southeastern region, providing a flexible and accessible pathway for aspiring professionals in this growing field. Once established, the Master of Science in Exercise and Sports Science with an emphasis in Strength and Conditioning will actively pursue funding and/or sponsorship opportunities from professional organizations and industry partners within the field. Potential collaborators include the National Strength and Conditioning Association, the American College of Sports Medicine, Sorinex, Rogue Fitness, Virus International, USA Weightlifting, USA Masters Weightlifting, and the International Masters Weightlifting Association. These partnerships will not only provide financial support but also enhance the program's visibility, credibility, and alignment with the standards and innovations shaping the profession.

Industry growth and demand for strength and conditioning professionals underscore the need for such a program. According to the Bureau of Labor Statistics (BLS, 2023), employment of coaches is projected to grow 9% from 2023 to 2033, significantly outpacing the average for all occupations. South Carolina currently has 3,460 coaching positions, with 41,800 new openings projected annually nationwide over the next decade (BLS, 2023). This surge is driven by an increasing

emphasis on athletic development, injury prevention, and long-term movement health, which fuels demand for certified strength and conditioning specialists (CSCS) and performance coaches across high school, collegiate, and professional sports settings (National Strength and Conditioning Association [NSCA], 2022).

This trend is not limited to competitive sports. The rise in movement-focused performance careers—such as tactical strength and conditioning for military and first responders, rehabilitation-based exercise science, and corporate wellness programming—highlights the translational value of functional physical capacity across the lifespan, particularly for the aging population. As aging-related mobility issues become a more pressing public health concern, strength and conditioning professionals are increasingly sought after in clinical and rehabilitative settings (World Health Organization [WHO], 2021). Research suggests that structured strength and conditioning programs can improve functional capacity and reduce injury risk in older adults and tactical populations, emphasizing the need for specialized training in these areas (Haff & Triplett, 2015).

Despite this rapid expansion of the sports performance, fitness, and strength and conditioning professions, South Carolina does not currently offer an online M.S. in Exercise and Sports Science with an emphasis in Strength and Conditioning. This gap presents several key challenges. First, professionals seeking to advance in strength and conditioning often have to look out of state or enroll in traditional, in-person programs, which may not be feasible for working professionals and coaches with demanding schedules. The absence of online programs in South Carolina places significant barriers on individuals who wish to pursue graduate education while remaining in the workforce (Allen & Seaman, 2017).

Additionally, the Central Savannah River Area (CSRA), home to major athletic programs and a growing high school and collegiate sports sector, lacks a graduate program that directly supports local coaches, trainers, and performance specialists in enhancing their credentials and elevating their practice. The Southeastern region, with its high concentration of Division I, II, and III colleges, professional sports teams, and high school athletic programs, requires qualified strength and conditioning professionals to meet evolving performance and safety standards (NSCA, 2022). Without a dedicated program to develop this expertise locally, the region risks falling behind in competitive athletic development.

The following is a list of potential sites of employment in the CSRA:

- Aiken High School
- North Augusta High School
- South Aiken High School
- Silver Bluff High School
- Midland Valley High School
- Wagener-Salley High School
- Ridge Spring-Monetta High School
- Aiken Scholars Academy
- Barnwell High School
- Blackville-Hilda High School
- Williston-Elko High School

- Allendale-Fairfax High School
- Evans High School
- Greenbrier High School
- Grovetown High School
- Harlem High School
- Lakeside High School
- University of South Carolina Aiken (USC Aiken)
- Aiken Technical College
- Denmark Technical College
- University of South Carolina Salkehatchie
- Augusta University
- Paine College
- Georgia Military College
- Augusta GreenJackets
- Georgia Soul Men's Basketball
- CSRA Hornets
- Augusta Panthers Soccer Club

As this is an online program that may attract students from outside of the immediate CSRA area, this list has the potential to expand accordingly.

The rising need for flexible, online learning pathways is another compelling reason for establishing this program. Many current and aspiring strength and conditioning coaches work in demanding environments where a traditional, on-campus program is not a viable option. The growth of online education and its proven effectiveness in science-based, applied fields make a well-designed, accredited online master's program a crucial next step for South Carolina's higher education system (Means et al., 2013). By offering a flexible format, this program would cater to the unique needs of working professionals, allowing them to balance their careers and academic pursuits.

Because the concentration in Strength and Conditioning is highly specialized and designed to meet the professional qualifications established by the National Strength and Conditioning Association, other master's degrees are unlikely to fulfill the requirements for certification at the highest level. Career advancement and certification preparation are therefore vital components of professional growth in this field. The Certified Strength and Conditioning Specialist (CSCS) certification—the gold standard in the profession—requires advanced knowledge in exercise science, biomechanics, and program design (NSCA, 2022). An online master's program in Strength and Conditioning would strategically prepare students not only for the CSCS but also for other industry-recognized credentials such as NSCA-CPT, NASM-PES, and USA Weightlifting certifications. By integrating applied coursework with virtual laboratory experiences, this program would bridge the gap between scientific theory and real-world practice, ensuring graduates are well equipped to meet the demands of the profession (Haff & Triplett, 2015).

As sports performance, rehabilitation, and movement-based careers continue to expand nationwide, South Carolina must establish an online Master of Science in Exercise and Sports Science with an emphasis in Strength and Conditioning to address the lack of graduate-level

programs in the state and Southeastern region. This initiative would meet the rising demand for strength and conditioning professionals in athletics, tactical performance, rehabilitation, and corporate wellness while providing a flexible, accessible pathway for working professionals to advance their education and career prospects. By supporting South Carolina's growing sports and fitness industry, this program would produce highly qualified, evidence-based practitioners capable of enhancing athlete performance, injury prevention, and public health initiatives.

By establishing this first-of-its-kind online master's program in South Carolina, the state would become a leader in exercise science education, meeting the evolving needs of both aspiring strength and conditioning professionals and the broader movement performance industry.

References

Allen, I. E., & Seaman, J. (2017). Digital learning compass: Distance education enrollment report 2017. Babson Survey Research Group.

Bureau of Labor Statistics. (2023). Coaches and scouts: Occupational outlook handbook. U.S. Department of Labor. https://www.bls.gov/ooh/entertainment-and-sports/coaches-and-scouts.htm

Haff, G. G., & Triplett, N. T. (2015). Essentials of strength training and conditioning (4th ed.). Human Kinetics.

Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2013). The effectiveness of online and blended learning: A meta-analysis of the empirical literature. Teachers College Record, 115(3), 1–47.

National Strength and Conditioning Association. (2022). NSCA professional standards and guidelines. https://www.nsca.com

World Health Organization. (2021). Physical activity and older adults. https://www.who.int/news-room/fact-sheets/detail/physical-activity

Transfer and Articulation

Identify any special articulation agreements for the proposed program. Provide the articulation agreement or Memorandum of Agreement/Understanding.
There are no transfer and articulation agreements in place.

Employment Opportunities

Supporting Evidence of Anticipated Employment Opportunities
Provide supporting evidence of anticipated employment opportunities for graduates.

Graduates of a Master of Science in Exercise and Sports Science with an emphasis in Strength and Conditioning will be well-positioned for a variety of growing employment opportunities in fitness, athletic performance, rehabilitation, and wellness. This demand is supported by the following evidence:

National Employment Growth Trends

- The U.S. Bureau of Labor Statistics (BLS) projects a 13% growth in employment for fitness trainers and instructors, including strength and conditioning professionals, from 2022 to 2032. This rate is faster than the national average for all occupations, driven by increasing public interest in health and fitness and the rising demand for specialized training programs.
- The growing emphasis on sports performance, injury prevention, and rehabilitation creates unique opportunities for professionals with advanced degrees in strength and conditioning.

Increasing Role of Sports and Fitness in Healthcare

- Organizations like the American College of Sports Medicine (ACSM) and the National Strength and Conditioning Association (NSCA) emphasize the role of strength and conditioning professionals in preventative care and rehabilitation, which is crucial in reducing healthcare costs and improving overall public health.
- The ACSM and NSCA also highlight the demand for highly trained professionals who can bridge the gap between clinical rehabilitation and performance-based training.

Opportunities in Collegiate and Professional Athletics

- NCAA programs are increasingly hiring strength and conditioning professionals with master's degrees to optimize athlete performance and reduce injuries. The NCAA reports that many universities now require head strength and conditioning coaches to hold advanced degrees and certifications (e.g., NSCA's Certified Strength and Conditioning Specialist).
- Professional sports teams in leagues such as the NFL, NBA, and MLB continue to invest heavily in performance and conditioning staff, often prioritizing candidates with graduate-level education and applied research experience.

Growth in Private Sector Training Facilities

- The rise of private training facilities, boutique gyms, and sports performance centers, such as EXOS and Parisi Speed School, has created increased demand for specialists trained in advanced methodologies and cutting-edge technologies.
- According to IBISWorld, the sports training industry in the U.S. has grown to over $10 billion in annual revenue, signaling substantial job opportunities for skilled professionals.

Corporate and Tactical Strength and Conditioning

- Corporate wellness programs are increasingly seeking strength and conditioning professionals to develop employee fitness and wellness programs. The BLS notes that this sector has seen consistent growth as businesses aim to improve employee health and productivity.
- Tactical strength and conditioning—serving military, police, and firefighting personnel—represents another rapidly expanding field. According to the NSCA, tactical programs are actively recruiting professionals with master's degrees to improve the fitness, resilience, and performance of their workforce.

Local and Regional Opportunities in the Central Savannah River Area (CSRA)

- With its strong ties to health and fitness industries, the CSRA offers local opportunities in healthcare systems, rehabilitation centers, collegiate athletics, and private fitness facilities.

- USC Aiken's partnerships with regional organizations and industries, such as Savannah River Nuclear Solutions and Augusta University Health, provide additional avenues for student internships, research collaborations, and post-graduate employment.

Enhanced Earning Potential and Career Advancement
- Professionals with a master's degree in exercise and sports science earn an average of 20–30% more than those with only a bachelor's degree, according to the NSCA.
- Advanced education also opens pathways to leadership roles, such as head strength and conditioning coach, performance director, and research scientist, which require higher-level expertise.

Graduates from the proposed Master of Science program will be well-prepared to meet the growing demand for skilled strength and conditioning professionals in diverse settings. The program's focus on advanced knowledge, practical experience, and regional partnerships ensures that graduates are equipped to thrive in a competitive and expanding job market. (APPENDIX A: Statements and letters of support)

Description of Program

Explain how the enrollment projections were calculated.
Based on USC Aiken's historical Exercise and Sports Science program enrollment, it is conservatively estimated that enrollment for the MS program will be 35 students by year 5 of the offering. That equates to a minimum of about 14 students per academic year. A projection for the number of MS in
Exercise and Sports Science students enrolled each year is provided below.

USC Aiken MS in EXSC Projected Enrollment					
Major	**Fa 2026**	**Fa 2027**	**Fa 2028**	**Fa 2029**	**Fa 2030**
MS in EXSC	7	14	21	28	35

The supporting data comes from USC AIKEN's growth and current enrollment in all graduate programs (sans the MBA program). The 2020 and 2021 academic years were impacted by COVID-19. If the proposed progression in enrollment is realized, the MS in Exercise and Sports Science would be the healthiest of all graduate programs (sans the MBA program).

The Department of Exercise and Sports Science at the University of South Carolina Aiken has established itself as a cornerstone of academic excellence within the College of Sciences and Engineering. Consistently ranking among the top-enrolled majors at both the college and university levels, the department has demonstrated its ability to attract and retain a diverse student population with a strong interest in health, fitness, and human performance.

This sustained enrollment success reflects the department's robust curriculum, exceptional faculty, and its alignment with the needs and interests of students preparing for careers in exercise science, sports performance, and allied health fields. The department's ability to maintain high levels of student engagement and program growth provides a strong foundation to support the development and implementation of a Master of Science in Exercise and Sports Science program with an emphasis in Strength and Conditioning.

The proposed graduate program will leverage the department's existing strengths, including its faculty expertise, student-centered approach, and commitment to applied learning and research. These assets position the department to expand its academic offerings, meet the growing demand for advanced education in strength and conditioning, and contribute further to the university's mission of preparing graduates to excel in their chosen fields.

Besides the general institutional admission requirements, are there any separate or additional admission requirements for the proposed program? If yes, explain.

☒ Yes

☐ No

Application Requirements for the Master of Science in Exercise and Sport Science Program

Acceptance by the Department of Exercise and Sports Science will be based on the applicant's total academic profile. That includes:

1. Application, Application fee, residency form with all requested information, and supporting documents.
2. Official transcripts showing all coursework attempted and the award of a baccalaureate or higher degree.
3. A complete application to the Graduate Office.
4. Bachelor's degree from an accredited institution with substantial work in Exercise and Sports Science or related coursework.
5. Transcripts of all undergraduate and graduate work (minimum GPA of 3.0 preferred).
6. No GRE is required for regular admission
7. Students with a GPA below 3.0 can apply as probationary students with additional evidence such as GRE scores, work experience, etc.
8. Three letters of recommendation, with at least two from faculty at academic institutions.

Curriculum

The proposed Master of Science in Exercise and Sports Science with an emphasis in Strength and Conditioning has been meticulously designed to provide students with a comprehensive foundation of knowledge that expands and deepens as they advance through the program. The curriculum incorporates feedback from regional stakeholders and industry professionals, emphasizing the need for advanced scientific knowledge, practical application, and essential skills such as written and oral communication.

Key components of the curriculum include dedicated application-based courses and integrated experiential learning opportunities that allow students to engage in evidence-based learning, performance testing, and program design. Many courses incorporate industry-standard tools and methodologies to ensure graduates are well-prepared for professional practice.

This practical, hands-on approach not only enhances the educational experience but also aligns with employer expectations, producing graduates who are equipped with the advanced skills and experience necessary to excel in strength and conditioning roles across diverse settings.

New Courses
List and provide course descriptions for new courses.

EXSC A508 Data Analytics in Sports Performance [3 Credit Hours] This course explores the principles and applications of data analytics in optimizing sport performance. Students will learn to collect, process, analyze, and interpret data to enhance decision-making in athletic training, coaching, and management. The course covers advanced topics such as predictive modeling, performance tracking, injury prevention analytics, and wearable technology integration. Emphasis will be placed on the practical application of data-driven insights to improve individual and team performance, including case studies from professional and collegiate sports. Students will also engage in hands-on projects utilizing industry-standard tools and software to analyze real-world datasets. By the end of the course, students will be equipped with the analytical and critical thinking skills necessary to leverage data in improving sport outcomes, fostering athlete well-being, and driving innovation in sports science and performance management.

EXSC A511 Advanced Nutrition for Athletic Performance [3 Credit Hours] This course explores applying effective human nutrition principles to enhance athletic performance in various sports and movement activities. Topics include dietary recommendations, nutrient requirements, performance strategies, recovery nutrition, hydration, competition preparation, and the use of ergogenic aids. Practical exercises will focus on nutrition periodization, meal planning, and diet analysis, equipping students to evaluate dietary needs for individual and team athletes.

EXSC A521: Biomechanics/Movement Analysis [3 Credit Hours] This course provides an advanced understanding of biomechanics and its application to human movement analysis. Students will explore the mechanical principles that govern motion, with a focus on kinematics, kinetics, and the analysis of complex movements. Emphasis is placed on using biomechanical tools and techniques to assess performance, identify movement inefficiencies, and design interventions to optimize function and reduce injury risk. Through laboratory experiences and case studies, students will develop the skills necessary to critically evaluate movement patterns and apply evidence-based solutions in clinical and performance settings.

EXSC A523 - Advanced Exercise Physiology [3 Credit Hours] Advanced exercise physiology provides an in-depth examination of the physiological mechanisms underlying human performance, focusing on the muscular, cardiovascular, respiratory, endocrine, and metabolic systems. This course explores the acute responses and chronic adaptations to various forms of exercise, including endurance training, resistance training, and high-intensity interval training, with an emphasis on how these adaptations influence athletic performance and overall physical function. Special attention is given to strength and conditioning applications, addressing how physiological principles guide program design for enhancing strength, power, endurance, and recovery. Students will engage with current research and literature to critically analyze

advancements in exercise physiology, including emerging topics such as mitochondrial function, neuromuscular adaptations, and hormonal regulation in response to training. By integrating scientific theory with practical application, this course prepares students for careers in sports science, strength and conditioning, rehabilitation, and exercise prescription, equipping them with the expertise to apply evidence-based physiological principles in performance optimization and health promotion.

EXSC A525 Injury Management for Strength and Conditioning Professionals [3 Credit Hours] This advanced course provides strength and conditioning professionals with the in-depth knowledge and practical skills necessary to effectively manage athletic injuries within a multidisciplinary team setting. Building upon foundational knowledge in sports medicine, the course emphasizes the role of the strength and conditioning professional in injury prevention, assessment, rehabilitation, and return-to-play decisions.

EXSC A526: Principles of Strength and Conditioning [3 Credit Hours] This course provides an in-depth exploration of the scientific principles underlying strength and conditioning practices. Students will examine foundational topics including exercise physiology, biomechanics, and motor learning, with an emphasis on their application to athletic performance and injury prevention. The course also covers the roles and responsibilities of strength and conditioning professionals, ethical considerations, and current trends in the field. By integrating theory with practical application, students will develop a strong understanding of the key components required for effective strength and conditioning programming.

EXSC A527: Program Design as Related to Strength and Conditioning [3 Credit Hours] Focusing on the art and science of program design, this course prepares students to create evidence-based strength and conditioning programs for diverse populations. Topics include needs analysis, exercise selection, training variables, periodization strategies, and progress monitoring. Emphasis is placed on tailoring programs to meet individual and team goals, while considering factors such as sport-specific demands, training age, and recovery. Through case studies and hands-on activities, students will refine their ability to develop comprehensive training plans that enhance performance and reduce the risk of injury.

EXSC A537 Mental Health and Sport Performance [3 Credit Hours] This course examines the critical relationship between mental health and athletic performance, focusing on the psychological well-being of athletes in diverse sports contexts. Students will explore key topics such as stress management, performance anxiety, burnout, injury recovery, and the impact of mental health on athletic success. Emphasis will be placed on evidence-based strategies to foster resilience, enhance focus, and support emotional well-being in both individual and team settings. The course integrates current research, case studies, and practical applications to prepare students to identify and address mental health challenges in athletes. Students will also examine the role of coaches, sport psychologists, and support staff in creating a positive mental health culture within athletic programs. By the end of the course, students will have the knowledge and tools to promote holistic wellness, improve performance outcomes, and support athletes in achieving their full potential on and off the field.

EXSC A558 Research Methods in Strength and Conditioning [3 credit hours] This course provides a comprehensive exploration of scientific methodologies used to study and analyze training programs, exercise performance, and injury prevention within the field of strength and conditioning. Students will be introduced to both quantitative and qualitative research methods, with an emphasis on data collection techniques, research design, and statistical analysis relevant to athletic performance. The course will cover the process of developing research questions, formulating hypotheses, and selecting appropriate research methodologies to assess the effectiveness of training interventions, evaluate performance outcomes, and identify strategies for injury prevention. Ethical considerations in conducting human subjects research will be examined, along with the challenges of ensuring participant safety and data integrity. Additionally, students will gain practical experience in data interpretation, learning how to analyze and present findings in a way that informs evidence-based practices in strength and conditioning. Through a combination of lecture-based instruction, case studies, and hands-on projects, this course will equip students with the critical skills to design and execute research that contributes to the advancement of strength and conditioning practices and enhances the understanding of how training programs impact athletic performance and injury risk. By the end of the course, students will be prepared to critically evaluate existing research, conduct their own investigations, and apply research findings to improve training protocols and athlete outcomes.

EXSC A596: Strength and Conditioning Practicum [3 credit hours] This comprehensive practicum course provides students with progressive, hands-on experience in the strength and conditioning profession, integrating foundational principles with advanced practical applications. Students must secure a practicum site with a Certified Strength and Conditioning Specialist (CSCS)-credentialed supervisor to ensure competency in accordance with National Strength and Conditioning Association (NSCA) standards. Through a minimum of 100 contact hours of supervised instruction, students will engage in program design, exercise technique, client interaction, and athlete monitoring while developing essential coaching and leadership skills. Emphasis is placed on understanding the roles and responsibilities of strength and conditioning professionals, learning assessment techniques, and applying evidence-based practices.
To ensure progressive skill development, students will complete a series of milestone assessments throughout the practicum, leading to independent coaching. As students advance, they will refine their coaching abilities, take on leadership roles, and develop comprehensive training programs for a variety of clients and athletes. The course also includes focused preparation for and completion of the NSCA Certified Strength and Conditioning Specialist (CSCS) exam. By the end of the course, students will demonstrate mastery of technical coaching skills, advanced program design, and critical decision-making, preparing them for professional independence in the field.
Potential practicum site may include, but are not limited to:
Universities & Colleges
CSRA Area
1. University of South Carolina Aiken – Department of Athletics
   https://pacersports.com
   NCAA Division II; opportunities with varsity sports and human performance lab.
2. Augusta University – Athletics & Kinesiology
   https://jaguarsroar.com

Division II athletic programs; partnerships with medical college for sport science.
3. Paine College – Athletics Department
https://www.paine.edu
Smaller athletic programs ideal for individualized coaching experience.

South Carolina (Outside CSRA)
4. University of South Carolina (Columbia) – Gamecock Athletics
https://gamecocksonline.com
Division I; strong strength & conditioning and sport science infrastructure.
5. Clemson University – Sports Performance Department
https://clemsontigers.com
High-performance environment; advanced data analytics in S\&C.
6. Coastal Carolina University – Strength & Conditioning
https://goccusports.com
7. The Citadel – Military and Athletic S\&C
https://citadelsports.com
Unique opportunities with military preparation and NCAA athletes.

High Schools (with Competitive Athletic Programs)

CSRA High Schools
1. North Augusta High School – Strength Training Program
2. Aiken High School – Athletic Department
3. Midland Valley High School – Athletic and PE Departments
4. Evans High School (GA) – Competitive athletic program
5. Greenbrier High School (GA) – Strong weight training curriculum

South Carolina High Schools
6. Dutch Fork High School (Irmo, SC) – Multiple state championships
7. Dorman High School (Spartanburg, SC) – Comprehensive S\&C programs
8. Fort Dorchester High School (North Charleston, SC)

Masters Athlete Training Facilities
1. CrossFit Augusta – Masters-level athletes in competitive functional fitness
https://crossfitaugusta.com
2. Rogue Fitness Affiliate Gyms (Statewide) – Many with active Masters athletes
https://www.crossfit.com/affiliate-map
3. Palmetto Weightlifting (Columbia, SC) – Home to masters and youth Olympic lifters
https://palmettoweightlifting.com
4. Team Savannah Weightlifting (Savannah, GA – near CSRA)
https://teamsavannahweightlifting.com

Independent Athlete Training Facilities

1. Mosaic Training (Aiken, SC) – Personal and small-group strength programs
   https://www.trainatmosaic.com
2. Next Level Fitness (Augusta, GA) – Youth and adult strength development
   https://www.nextlevelaugusta.com
3. Athlete's Arena (Lexington, SC) – Performance coaching for high school and college-bound athletes
   https://athletesarena.com
4. Ignite Performance (North Augusta, SC) – Sport-specific training and recovery services
   https://igniteperformance.org
5. D1 Training (Greenville and Charleston, SC) – Franchise facility focused on athletic development
   https://www.d1training.com
6. Iron Bridge CrossFit (Columbia, SC) – Active involvement with masters and adaptive athletes
   https://www.ironbridgecrossfit.com

Many other sites throughout the state of South Carolina and the surrounding area.

30 Credit Hours Total

Session	Date	Course A	Course B
1	Fall Term IA	EXSC A523 Advanced Exercise Physiology	EXSC A558 Research Methods in Strength and Conditioning
2	Fall Term IB	EXSC A526 Principles of Strength and Conditioning	EXSC A508 Data Analytics in Sports Performance
3	Spring Term IA	EXSC A527 Program Design as Related to Strength and Conditioning	EXSC A521 Biomechanics/Movement Analysis
4	Spring Term IB	EXSC A525 Injury Management for Strength and Conditioning	EXSC 511 Advanced Nutrition for Athletic Performance
5	Summer Term IS3	EXSC A537 Mental Health and Sport Performance	EXSC A596 Practical I

Similar Programs in South Carolina and within a 100 mile radius of USC Aiken offered by Public and Independent Institutions

Identify the similar programs offered and describe the similarities and differences for each program.

Curriculum information was obtained from school-specific web pages.

Degree Name	Credit Hours	Institution	Similarities	Differences
MS in Kinesiology	36	Augusta University	Emphasis on exercise science topics; non-thesis track	Thesis track requires on-campus presence; broader focus beyond strength and conditioning
MS in Exercise and Sport Science	33	University of South Carolina Upstate	Covers advanced exercise physiology and research methods; includes in-person training	Program includes in-person instruction; not fully online
MS in Exercise Science	33	Lander University	Offers concentrations in Sport Performance & Rehabilitation; prepares for CSCS exam	Program is not fully online; includes in-person components
MS in Kinesiology	36	Georgia Southern University	Integrates science and application in mental aspects of sport performance	Focuses on sport and exercise psychology; not fully online

MS in Exercise Science	36	University of South Carolina	Offers specializations in applied physiology and sports performance, aligning with strength and conditioning principles.	Primarily on-campus program; not fully online.

Faculty

Faculty, Staff, and Administrative Personnel

Discuss the Faculty, Staff, and Administrative Personnel needs of the program.

The faculty teaching courses in the MS EXSC program include current professors and University Staff

MS EXSC Faculty			
Rank	**Courses Taught for MS EXSC**	**Relevant Degree(s)**	**Other Qualifications**
Professor	EXSC A523, EXSC A597, EXSC A598, EXSC A599	PhD Exercise Science University of Tennessee	FACSM
Associate Professor	EXSC A537, EXSC A558, EXSC A597, EXSC A598, EXSC A599	PhD Exercise Science University of Mississippi	USAW-L1
Assistant Professor	EXSC A526, EXSC A527, EXSC A597, EXSC A598, EXSC A599	PhD Exercise Science University of South Carolina	CSCS, NSCA TSAC
Senior Instructor	EXSC A525, EXSC A597, EXSC A598, EXSC A599	M.Ed. Education Administration University of South Carolina	ATC
Senior Instructor	EXSC A526, EXSC A527, EXSC A597, EXSC A598, EXSC A599	M.S. Exercise Science University of Colorado	CSCS
Head Strength and Conditioning Coach	EXSC A526, EXSC A527, EXSC A597, EXSC A598, EXSC A599	M.S. Exercise Science Southeastern University	CSCS

The faculty within the Master of Science in Exercise and Sports Science (MS EXSC) program brings a wealth of diverse expertise, allowing each member to instruct multiple courses across the

curriculum. This flexibility is a significant strength of the program, as it enables the distribution of course loads across a well-qualified and experienced team. Each faculty member possesses advanced academic credentials, experiences, and practical knowledge in key areas of exercise science, ensuring that students receive high-quality instruction regardless of the course. By leveraging the interdisciplinary skills of the faculty, the program will be able to efficiently meet the needs of the curriculum while enhancing the overall student learning environment.

A Program Director will be appointed to provide oversight to the program. The Program Director will be a faculty member whose secondary role is to supervise the program and will report to the Chair of the Department of Exercise and Sports Science. Other duties for this position may include student recruitment, developing retention planning, course development and formatting, and creating and overseeing an assessment plan.

MS EXSC STAFFING PLAN						
Administration						
YEAR	**NEW**		**EXISTING**		**TOTAL**	
	Headcount	FTE	Headcount	FTE	Headcount	FTE
2026-27	0	0	1	.25	1	.25
2027-28	0	0	1	.25	1	.25
2028-29	0	0	1	.25	1	.25
2029-30	0	0	1	.25	1	.25
Faculty						
YEAR	**NEW**		**EXISTING**		**TOTAL**	
	Headcount	FTE	Headcount	FTE	Headcount	FTE
2026-27	0	0.00	8	.125	8	1
2027-28	0	0.00	8	.125	8	1
2028-29	0	0.00	8	.125	8	1
2029-30	0	0.00	8	.125	8	1
Staff						
YEAR	**NEW**		**EXISTING**		**TOTAL**	
	Headcount	FTE	Headcount	FTE	Headcount	FTE
2026-27	0	0	2	.125	2	.25
2027-28	0	0	2	.125	2	.25
2028-29	0	0	2	.125	2	.25
2029-30	0	0	2	.125	2	.25
“New” staffing would be composed of personnel hired specifically for the MS EXSC program. “Existing” staffing is composed of current program administration and professors teaching supporting courses Administration – Department Head and Coordinator of MS in EXSC Faculty – Faculty members supporting the MS EXSC program. Staff – Department Head Administrative Assistant						

Resources

Library and Learning Resources

Explain how current library/learning collections, databases, resources, and services specific to the discipline, including those provided by PASCAL, can support the proposed program. Identify additional library resources needed.

The USCA Gregg-Graniteville Library fosters success, engagement, and critical thinking by connecting students, faculty, and the community with innovative instruction, diverse programs, adaptable and responsive services, and tailored, sustainable collections in physical and virtual environments that nurture and encourage lifelong learning.

- Ask a Librarian
- Book a Librarian
- Citation Help
- Research Guides
- Inter Library Loans
- PASCAL Delivers

With respect to the Exercise and Sports Science program, minimal additional resources will be requested. The library has access to databases supporting Exercise and Sports Science literature.

The following is a listing of the proposed textbooks for the graduate level Exercise and Sports Science courses, however professors hired by USC AIKEN may choose to select alternative textbooks for the courses.

Turner, A., & Comfort, P. (Eds.). (2022). *Advanced Strength and Conditioning: An Evidence-Based Approach* (2nd ed.). Routledge.
ISBN: 978-0367491352
This textbook integrates data analytics into strength and conditioning practices, covering performance assessment, monitoring training loads, and applying evidence-based strategies to enhance athletic development. It emphasizes how practitioners can use data to inform decision-making, optimize programming, and track athlete progress.

Burke, L. M., & Deakin, V. (Eds.). (2020). *Clinical Sports Nutrition* (6th ed.). McGraw-Hill Education.
ISBN: 978-1760425424
This comprehensive resource explores the science of sports nutrition, focusing on optimizing performance through dietary strategies. Topics include nutrient timing, hydration, supplementation, and individualized nutrition plans tailored to the demands of various sports and athletic goals.

Siff, M. C. (2003). *Supertraining* (6th ed.). Supertraining Institute.
ISBN: 978-0963631624
This text offers an in-depth exploration of the physiological, biomechanical, and methodological principles of strength and conditioning. It integrates advanced concepts in exercise physiology with practical applications, including periodization, recovery, and the neuromuscular adaptations to training, making it a valuable resource for professionals and researchers in the field.

Prentice, W. E. (2023). *Principles of Athletic Training: A Guide to Evidence-Based Clinical Practice* (17th ed.). McGraw-Hill Education.
ISBN: 978-1260241783

This comprehensive resource provides detailed insights into the prevention, assessment, and management of sports-related injuries. It emphasizes evidence-based practices and includes guidelines specifically useful for strength and conditioning professionals working to design safe and effective training programs while addressing injury risks and rehabilitation protocols.

Alvar, B. A., & Sell, K. (Eds.). (2020). *NSCA's Essentials of Tactical Strength and Conditioning*. Human Kinetics.
ISBN: 978-1492507013
This textbook provides a comprehensive framework for designing strength and conditioning programs tailored to the unique demands of tactical professionals, including military, law enforcement, and firefighters. It covers energy systems, injury prevention, and performance optimization specific to tactical athletes.

Williams, J. M., & Krane, V. (2020). *Applied Sport Psychology: Personal Growth to Peak Performance* (8th ed.). McGraw-Hill Education.
ISBN: 978-1260575748
This text explores the psychological aspects of sport performance, including the impact of mental health on athletes. It provides evidence-based strategies for enhancing mental well-being and performance, addressing topics such as motivation, stress management, focus, and coping with adversity in sports contexts.

Crewther, B., Cronin, J., Keogh, J., & Cook, C. (Eds.). (2020). *Strength and Conditioning: Biological Principles and Practical Applications*. Springer.
ISBN: 978-9811366467
This textbook provides a thorough foundation in research methods specific to strength and conditioning, blending scientific principles with practical applications. It covers experimental design, data collection, and analysis, with a focus on translating research findings into effective training practices.

Office of Online Learning and Support
The Office of Online Learning and Support provides faculty with course development assistance within USC Aiken's learning management system, Blackboard. Trainings, workshops, and other technology and pedagogical/andragogical techniques are offered regularly through this division. Online learners will have access to a high-quality learning management system and can reach out to the Online Learning and Support team with any issues within Blackboard.

Student Support Services
Explain how current academic support services will support the proposed program. Identify new services needed and provide any estimated costs associated with these services.

Technology Services: The Technology Services Division (TSD) provides technology support to students, faculty, and staff in the areas of computing, networking, instructional technology and voice communication tools necessary to support the academic and administrative missions of the university.

Disability Services: The mission of Disability Services is to facilitate the transition of students with disabilities to the University environment and act to provide appropriate accommodations for each student's special needs to ensure equal access to all programs, activities, and services at USC Aiken.

Center for Research Excellence: At USC Aiken, there are many opportunities for students and faculty to connect through research. Whether it be collaborating on a biological study or conducting a research project in psychology, students and faculty are working together to make new discoveries. Students interested in participating in research may do so in a number of disciplines throughout the sciences and humanities.

The *Connections* Award promotes the formation of research and creative interactions between our students and faculty. The *Connections* program will provide funding, up to $1000, for mentored undergraduate scholarly/creative activities.

The USC AIKEN Passport to Research Opportunities in Biomedicine (PROBe) program is funded by the National Institutes of Health through the South Carolina IDeaA Networks of Biomedical Research Excellence (INBRE). The PROBe program is a multi-pronged strategy to expand and enhance biomedical research on the USC Aiken campus.

The WORC Scholars Program is a systematic, holistic, multi-faceted, intentional approach to workforce development designed to recruit, retain, and develop STEM majors from high school to career. This program is funded by the Workforce Opportunities in Regional Careers grant provided through our partnership with the Savannah River Site Reuse Organization (SRSCRO) and the Department of Energy.

The College of Sciences and Engineering and the **Center for Research Excellence** provide the USC AIKEN *Summer Scholars Institute (SSI)* in support of student-faculty summer research. External funding from ADP, SC INBRE, and WORC has enabled SSI to increase STEM undergraduate research activity at USC AIKEN.

Center for Student Achievement: The Center for Student Achievement offers numerous academic success services and resources for USC Aiken students. From workshops to individual tutoring, handouts to Supplemental Instruction, all the services included on this site are free for enrolled USC-Aiken students.

Career Services: Career development is an integral part of university life and provides students and alumni with the guidance, knowledge, experiences, skills, and connections that will lead to successful, lifelong career management. To take full advantage of the many resources and services available requires some initiative on the part of the student. In this rapidly changing, competitive global market, the Career Services staff invites students to empower themselves by taking charge of their career futures. The staff is available to assist students through this process. Students can begin taking charge of their futures by applying for job positions and internships in the community. Many job openings are posted on **Handshake**, USC Aiken's online job board. Career Services can also assist alumni in their search for full-time employment. Individual career counseling appointments are available upon request.

Bookstore: The USC Aiken Bookstore is located inside the Student Activity Center (SAC). Students can purchase textbooks and course materials, order textbooks, sell used textbooks, and register for textbook rental.

Dining Services: USC Aiken offers students four dining options on campus: (1) the Pacer Market, (2) the SAC Café, (3) Starbucks, and (4) The Station.

Campus Recreation and Wellness: The Wellness Center includes a large fitness area with cardiovascular equipment (bikes, rowers, treadmills, ski machines, elliptical cross trainers and stair steppers), selectorized and plate-loaded weight equipment, dumbbells and a 1/16-mile walking track. There is a studio with wall-to-wall mirrors, gymnasium, locker rooms, and an exercise physiology laboratory, as well as an instructional classroom. The facility is supervised by CPR trained staff. The Natatorium includes a six-lane pool and locker rooms. This facility is supervised by certified lifeguards during open swim hours and special programs. One-on-one swimming lessons are available through our personal training program. The main outdoor intramural fields are located by the Varsity Softball complex with the intramural softball field located behind the Residence Halls. There is also a Disc Golf Course and Cross-Country path located near the Varsity Baseball Complex. Indoor sports are played in the SAC Gym.

Student Health Center: The mission of the USC Aiken Student Health Center (SHC) is to provide assessment, treatment, and/or referral for common health issues experienced by the USC Aiken student community.

Veteran and Military Student Success: The mission of the Office of Veteran and Military Student Success (VMSS) is to champion veterans, Service Members, and the family members of our country's Armed Forces in their educational pursuits as they transition from their military service through the university, and on to becoming vital community members. It offers a meeting space where students can study for exams, learn from current students, and find a sense of community during their transition back into civilian life.

Physical Resources/Facilities
Identify the physical facilities needed to support the program and the institution's plan for meeting the requirements.
As this will be an online program, no additional physical resources or facilities will be required.

Math Lab: The Math Lab, located in the Gregg-Graniteville Library, is a free tutoring service offered to students. Faculty and student tutors provide support in math courses ranging from College Algebra through Calculus II. In addition, students can request tutoring for the math portions of any Exercise and Sports Science course.

Writing Center: The Writing Center is staffed by undergraduate students, professional tutors, and professors trained to provide feedback on a wide range of writing genres. We offer in-person and online appointments, and walk-ins based on availability. The services are for all members of the USC AIKEN community, free of charge. The Center offers assistance in all facets of writing and composition at the college level.

Study Areas: Study areas are located in the Gregg-Graniteville Library on both floors. The study areas include open spaces, meeting rooms, computer workstations, and reservable quiet study rooms.

Equipment
Identify new instructional equipment needed for the proposed program.
No new instructional equipment will be needed for the proposed MS in Exercise and Sports Science with an emphasis in Strength and Conditioning. All faculty are equipped with the necessary computers and access to the appropriate learning management systems to facilitate the program.

Impact on Existing Programs
Will the proposed program impact existing degree programs or services at the institution (e.g., course offerings or enrollment)? If yes, please explain.
It is expected that the MS in Exercise and Sports Science with an emphasis in Strength and Conditioning will consist of a new group of students interested in Strength and Conditioning specifically. USC Aiken has sufficient faculty for supporting the required Exercise and Sports Science courses required.

Financial Support
At this time, there is no need for additional financial support to launch the Master of Science in Exercise and Sports Science with an emphasis in Strength and Conditioning at the University of South Carolina Aiken. The current faculty have the expertise and capacity to effectively support the program in its initial stages. As the program develops and enrollment grows, a future assessment of faculty workload and resource needs will determine whether additional support is necessary. If the program demonstrates long-term viability and exceeds current faculty capacity, appropriate resources may be sought to maintain program quality and sustainability.

Budget Justification
Provide an explanation for all costs and sources of financing identified in the Financial Support table. Include an analysis of cost-effectiveness and return on investment and address any impacts to tuition, other programs, services, facilities, and the institution overall.

The Exercise and Sports Science program at the University of South Carolina Aiken is well-positioned to support the initial demand of a graduate program through strategic management of existing undergraduate course offerings. By leveraging current faculty expertise and optimizing course scheduling, the department can accommodate graduate-level instruction without compromising the quality or integrity of the undergraduate curriculum. As the graduate program matures and reaches a state of independence and viability, the department is committed to hiring additional faculty to ensure an appropriate balance of instructional hours. This phased approach will allow for sustainable growth while maintaining high academic standards across all program levels.

The following tables address the income, expenses, and net totals of this proposal.

Category	Year 1	Year 2	Year 3	Year 4	Year 5	Grand Total
Tuition Funding	$85,470	$170,940	$256,410	$341.880	$427,350	$1,282,050
Graduate Fee	$0	$0	$0	$0	$0	$0
CSE Fee	$0	$0	$0	$0	$0	$0

Special Appropriation	$0	$0	$0	$0	$0	$0
Reallocation of Existing Funds	$0	$0	$0	$0	$0	$0
Federal Grants or Other Funding	$0	$0	$0	$0	$0	$0
Total	$77,700	$155,400	$233,100	$310,800	$388,500	$1,165,500

	Year 1		Year 2		Year 3		Year 4		Year 5		Grand Total	
Category	New	Total	New	Total	New	Total	New	Total	New	Total	New	Total
Program Administration and Faculty Staff Salaries	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Facilities, Equipment, Supplies, and Material	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Library Resources	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other (Specify) – Marketing	$5000	$5000	$5000	$5000	$5000	$5000	$5000	$5000	$5000	$5000	$25000	$25000
Net Total (Sources of Financing Minus Estimated Costs)	$77,700	$77,700	$77,700	$150,400	$77,700	$228,100	$$77,700	$305,800	$77,700	$383,500	$1,140,500	$1,140,500

Evaluation and Assessment

1. Direct Measures (Competency-Based Evaluations)

Assessment Tool	**Program Objective(s) Addressed**	**SLO(s) Assessed**	**Benchmark for Success**
Comprehensive Exams (Written & Oral)	1, 2, 3	1, 2, 3, 4, 5	85% of students score ≥80%
Capstone Project / Research Thesis	1, 2	1, 2, 3, 4	90% of students complete a research project that integrates evidence-based practice in S&C
Case Study Analysis & Presentation	1, 2, 3	2, 3, 4, 5	85% of students receive a "Proficient" rating or higher
Practical Skills Assessment (Coaching Evaluations)	1, 3	2, 3, 4, 5	90% of students demonstrate competency in hands-on coaching assessments
Internship Performance Evaluation (by Supervisor)	1, 3	2, 3, 4, 5	90% of students receive a satisfactory evaluation or higher
Performance Assessment Practicum	1, 2	3, 4	85% demonstrate proficiency in athlete

			monitoring and data-driven decision-making
Mock NSCA-CSCS Certification Exam	3	1, 2, 3, 4, 5	85% of students score ≥75%

2. Indirect Measures (Perception-Based Evaluations)

Assessment Tool	**Program Objective(s) Addressed**	**SLO(s) Assessed**	**Benchmark for Success**
Exit Survey (Student Self-Assessment)	1, 2, 3	All	85% of students rate their preparedness as "High" or "Very High"
Alumni Survey (Post-Graduation Feedback)	1, 2, 3	All	85% of graduates report program effectiveness in career preparation
Employer Survey (Feedback from Industry Professionals)	1, 2, 3	2, 3, 4, 5	85% of employers rate graduates as "Well Prepared" or higher
Graduate Placement Tracking	3	5	90% of graduates secure employment or professional certification within 6 months

II. Performance Benchmarks & Competency Expectations

1. Knowledge Acquisition:
    - At least 85% of students must demonstrate mastery of scientific foundations through comprehensive exams and coursework.
    - Benchmark: Average score of ≥80% in all foundational coursework and exams.
2. Applied Strength and Conditioning Skills:
    - At least 90% of students must meet competency standards in program design, exercise selection, and periodization during practical assessments and case studies.
    - Benchmark: “Proficient” rating or higher in coaching evaluations and internship supervisor feedback.
3. Performance Data Collection and Analysis:
    - At least 85% of students must successfully apply performance monitoring tools and demonstrate proficiency in interpreting data for training adaptations.
    - Benchmark: “Proficient” rating or higher in practical labs and performance assessment practicum.
4. Professionalism & Ethical Standards:
    - At least 90% of students must exhibit professionalism, leadership, and effective communication in internship settings and peer evaluations.
    - Benchmark: "Satisfactory" or higher rating in internship evaluations and employer feedback.
5. Certification Readiness & Career Placement:
    - At least 85% of students must pass the NSCA-CSCS mock exam with a minimum score of 75%.
    - Benchmark: 90% of graduates obtain employment, further education, or professional certification within six months.

III. Continuous Program Improvement Strategy

1. Annual Curriculum Review & Faculty Meeting
    - Faculty will analyze assessment results and adjust course content based on trends in student performance, faculty observations, and employer feedback.

- Data sources: Exam scores, capstone project evaluations, employer feedback, and certification pass rates.

2. Advisory Board Consultation
   - Input from NSCA professionals, alumni, and industry leaders will be used to refine curriculum, ensure industry relevance, and enhance experiential learning.
3. Student Feedback Implementation
   - Exit surveys and course evaluations will be reviewed each semester to determine areas of improvement in course delivery and instructional methods.
4. Internship and Employer Feedback Integration
   - Internship evaluations and employer feedback will guide refinements in practical coursework and coaching methodologies.
5. NSCA ERP Benchmarking
   - The program will align its assessment plan with NSCA ERP standards, ensuring continued recognition and competitive standing in strength and conditioning education.

IV. Summary

This assessment plan ensures that graduates of the M.S. in Exercise and Sports Science (Strength & Conditioning Emphasis) meet high standards of scientific knowledge, applied skill proficiency, professional readiness, and career placement. By combining direct competency-based assessments with indirect industry and student feedback, this plan fosters continuous program development while upholding the NSCA Education Recognition Program (ERP) designation.

Program Objectives:

1. Develop Advanced Expertise in Strength and Conditioning:

Equip students with in-depth knowledge and applied skills in designing, implementing, and evaluating strength and conditioning programs tailored to athletes of varying ages, skill levels, and sports. Students will integrate principles of biomechanics, exercise physiology, motor learning, and sports nutrition to enhance athletic performance, injury prevention, and recovery. Emphasis will be placed on applying theoretical concepts to real-world coaching scenarios through hands-on practical experiences.

2. Cultivate Evidence-Based Practice and Research Proficiency:

Ensure students develop the ability to critically evaluate and apply current scientific literature to strength and conditioning practices. Through advanced coursework in research methodologies and data analysis, students will learn to interpret and integrate peer-reviewed studies, conduct performance assessments, and implement data-driven training strategies. This objective fosters a commitment to continuous professional development and lifelong learning in the evolving field of strength and conditioning.

3. Prepare for Professional Certification and Career Advancement:

Provide students with the comprehensive knowledge, practical competencies, and test-taking strategies necessary to successfully attain the Certified Strength and Conditioning Specialist (CSCS) certification through the National Strength and Conditioning Association (NSCA). Additionally, students will develop professional skills essential for career advancement, including leadership, communication, ethical decision-making, and interdisciplinary collaboration within high-performance sport and fitness settings.

These objectives ensure graduates are well-equipped to excel in strength and conditioning roles, bridging scientific knowledge with practical application while upholding the highest professional standards.

Student Learning Outcomes

1. Scientific Foundations of Strength and Conditioning:
Students will demonstrate a comprehensive understanding of applied exercise science principles, including advanced physiological, biomechanical, and psychological factors that influence human performance. They will critically analyze and apply knowledge of neuromuscular adaptations to resistance training, principles of periodization, energy system development, and recovery strategies to optimize athletic performance and reduce injury risk. Emphasis will be placed on integrating current research findings into practical training methodologies.

2. Applied Program Design and Implementation:
Students will develop, implement, and evaluate individualized and sport-specific strength and conditioning programs using evidence-based approaches. They will integrate advanced concepts from master's-level coursework, such as biomechanics, exercise physiology, and motor learning, to enhance training effectiveness. Practical application will focus on designing progressive training cycles tailored to an athlete's physiological and biomechanical needs while considering key variables such as age, biological maturity, skill level, injury history, and sport-specific demands.

3. Performance Assessment, Monitoring, and Data-Driven Decision-Making:
Students will apply advanced assessment tools and technologies to evaluate key performance indicators, including strength, power, speed, endurance, mobility, and movement efficiency. They will utilize data analytics to monitor training progress, interpret physiological responses, and make informed modifications to training programs. Emphasis will be placed on translating laboratory-based and field-testing results into actionable insights that enhance athletic development and minimize the risk of overtraining.

4. Injury Prevention, Rehabilitation, and Recovery Optimization:
Students will apply principles of injury prevention and rehabilitation within strength and conditioning environments, utilizing an evidence-based approach to load management, movement screening, and corrective exercise programming. They will incorporate applied exercise science concepts, such as musculoskeletal biomechanics and recovery physiology, to optimize athlete resilience and longevity. Practical application will include integration of nutrition, sleep optimization, and individualized recovery strategies to enhance training adaptations and performance sustainability.

5. Professionalism, Ethics, and Leadership in Strength and Conditioning:
Students will exemplify professional conduct, ethical decision-making, and leadership in coaching and training environments. They will develop advanced communication and interpersonal skills to effectively collaborate with athletes, coaches, sports medicine professionals, and interdisciplinary performance teams. Emphasis will be placed on applying evidence-based coaching strategies, engaging in continuous professional development, and upholding the standards set forth by the NSCA's Education Recognition Program (ERP).

These outcomes ensure that graduates are highly skilled in the practical application of advanced exercise science concepts, preparing them for leadership roles in strength and conditioning, sport performance, and applied research settings.

Accreditation and Licensure/Certification

Will the institution seek program-specific accreditation? If yes, describe the institution's plans to seek accreditation, including the expected timeline.

☒
Yes
☐
No

The mission of the MS in Exercise and Sports Science with an emphasis in Strength and Conditioning is to provide students with graduate strength and conditioning curricula designed to prepare them for the NSCA Certified Strength and Conditioning Specialist® (CSCS®) certifications and to be effective professionals in the field.

The program will seek NSCA (National Strength and Conditioning Association) recognition as an NSCA Education Recognition Program (ERP) Graduate Strength and Conditioning Program, as the undergraduate program has maintained this designation for the past five years.

The NSCA ERP for a Graduate Strength and Conditioning Program requires:

PROGRAM DIRECTOR

The Program Director is responsible for administering the academic program and ensuring that all rules and regulations are followed and that the program complies with the standards for recognition. The Program Director must be a teaching faculty member and have voting privileges in the academic unit that houses the program. Academic rank and tenure status are irrelevant. The Program Director does not necessarily need to be a CSCS.

TEACHING FACULTY

The teaching faculty of the graduate studies educational program shall be identified as those faculty members responsible for teaching in the required subject matter areas specified in Section III, as well as other didactic coursework included in the graduate studies curriculum as identified by the institution. Members of the teaching faculty must have formal appointments in the academic unit and be financially compensated for their services. Rank and tenure status are irrelevant. Members of the teaching faculty can be classified as full-time, part-time, adjunct, or graduate teaching assistants. At least one (1) teaching faculty member must be a CSCS and sponsor this application.

CSCS SPONSOR

At least one CSCS must be directly involved in educating the students in the program as a member of the teaching faculty and must sponsor this application. The CSCS sponsor must also be a full-time employee of the institution sponsoring this application. For example, a non-CSCS faculty member, or a non-CSCS department chairperson can be identified as the Program Director and can teach in the recognized graduate studies curriculum, as long as the institution employs a full-time CSCS who is directly involved in the educational program as a member of the teaching faculty, and who endorses the application.

The Department of Exercise and Sports Science at the University of South Carolina Aiken fulfills each of these requirements with four CSCS designated faculty.

The NSCA further requires a curriculum that contains the following graduate level courses:
Exercise Physiology
Principles of Strength and Conditioning (required)
Research Methods
Statistical Techniques
Program Design as Related to Strength and Conditioning (required)
Biomechanics/Movement Analysis

Additionally, the NSCA requires two or more of the following courses be taught at the graduate level to earn ERP designation:
Sports Psychology
Injury Prevention/Recognition
Lifespan Development
Nutrition (Sports Nutrition is preferred)
Organization/Administrative Aspects
Anatomical Kinesiology/Gross Anatomy/ Anatomy & Physiology
Courses in the proposed curriculum

Will the proposed program lead to licensure or certification? If yes, identify the licensure or certification.
Based on information provided by the National Strength and Conditioning Association, students will be provided with the content and practical experience to earn the Certified Strength and Conditioning Specialist certification (the industry's gold standard).

Explain how the program will prepare students for this licensure or certification.
The program will award a Master of Science degree, positioning the student to take the NSCA—CSCS exam.

Explain how the proposed program, including all program objectives and plans to track employment, will be evaluated. Describe how assessment data will be used.
Evaluation of the Proposed MS in Exercise and Sports Science with an Emphasis in Strength and Conditioning Based on NSCA Criteria

The proposed Master of Science in Exercise and Sports Science with an Emphasis in Strength and Conditioning will be evaluated using National Strength and Conditioning Association (NSCA) criteria to ensure alignment with industry standards and to maintain eligibility for NSCA's Education Recognition Program (ERP). The program's evaluation will focus on the following areas:

1. Curriculum Alignment with NSCA Standards
- The curriculum will be designed to meet NSCA's Strength and Conditioning Professional Standards and Guidelines and will align with the competencies required for Certified Strength and Conditioning Specialist (CSCS) certification.
- Courses will be assessed for content relevance, ensuring they address key areas such as exercise physiology, biomechanics, program design, sports nutrition, and applied coaching techniques.
- Course syllabi, learning objectives, and instructional methods will be reviewed annually to ensure continued compliance with NSCA recommendations.

2. Faculty Qualifications and Development
- Faculty teaching in the program will be required to hold appropriate credentials (e.g., CSCS, NSCA-CPT, or other relevant certifications) and academic qualifications.
- Professional development opportunities will be encouraged, including attendance at NSCA conferences and workshops, to stay current with industry trends.

3. Student Learning Outcomes Assessment
- Direct and indirect assessments will be used to measure student competencies in strength and conditioning principles, scientific reasoning, and practical application.
- Key assessments will include practical examinations, case study analyses, research projects, and internship evaluations.
- Graduates will be expected to meet or exceed NSCA standards for professional knowledge and practical application.

4. Certification Exam Pass Rates
- A primary metric for program success will be the percentage of graduates who obtain the CSCS certification.
- Pass rates will be tracked and compared to national averages to assess program effectiveness.
- Data will be used to refine coursework, enhance exam preparation strategies, and provide targeted student support.

5. Internship and Practicum Evaluation
- The program will include internships and practical experiences at NSCA-recognized training facilities, collegiate strength programs, and sports performance centers.
- Intern supervisors will provide structured evaluations of student performance, and students will complete self-reflection assessments on their practical experiences.
- Internship outcomes will be analyzed annually to ensure experiential learning aligns with NSCA expectations and employer needs.

6. Graduate Employment Tracking
- Employment rates will be tracked through alumni surveys, employer feedback, and LinkedIn analytics.
- Data collection will focus on:
  - Employment in strength and conditioning, fitness coaching, or related fields.
  - Positions at collegiate, professional, and private sector training facilities.
  - Continued education (e.g., Ph.D. or professional certifications).

- Employer satisfaction surveys will assess whether graduates are well-prepared for industry demands.

Use of Assessment Data
Assessment data will be used in the following ways:
- Curriculum Improvement: Trends in student performance and employer feedback will guide curriculum updates to ensure continued alignment with NSCA standards.
- Faculty Development: Evaluation of teaching effectiveness and professional development needs will be informed by assessment outcomes.
- Student Support Services: Certification pass rates and employer feedback will inform additional student support, such as targeted CSCS exam preparation resources.
- Program Accreditation & Recognition: Collected data will be compiled for annual reports and used to maintain NSCA ERP recognition.
- Strategic Planning & Marketing: Employment tracking data will be leveraged to showcase program success and inform recruitment efforts.

By systematically evaluating the program against NSCA criteria and tracking graduate outcomes, the MS in Exercise and Sports Science with an Emphasis in Strength and Conditioning will remain competitive, industry-relevant, and effective in preparing students for careers in strength and conditioning.

If the program is an Educator Preparation Program, does the proposed certification area require national recognition from a Specialized Professional Association (SPA)? If yes, describe the institution's plans to seek national recognition, including the expected timeline.

☐
Yes

☒
No

APPENDIX A

Statement and Letters of Support

Local –
Brandon Aiken ATC CSCS
Associate Athletic Director for Sports Medicine University of South Carolina
Aiken
Office: 803 641-3367
Email: b.randona@usca.edu

7/16/2025

Dr Adrew Hatchett
Chair, Department of Exercise and Sport Science University of South Carolina
Aiken

Dear Andrew,

My name is Brandon Aiken, and I am the Associate Athletic Director for Sports Medicine at the University of South Carolina Aiken. I am writing to provide my official endorsement for the online Master of Science in Exercise and Sport Science with specialized emphasis in Strength and Conditioning.

The profession of strength and conditioning is projected to have a faster that average growth rate of 14%-20% over the next 8-1O years. With an increase in sports participation and attention on injury prevention and performance as well as an increased interest in fitness and wellness by the public. The field of strength and conditioning has become very competitive and as such the need for quality education that meets industry standards is apparent. I firmly believe that this new program will absolutely meet those needs and with the faculty you currently have will become a program of excellence and distinction.

Athletics is eagerly enthusiastic about the prospect of a strong collaboration and providing real-world experiences for those enrolled.

Thank you for your commitment to strengthening the profession with your program proposal, I know you will have great success.

Regards,

Brandon Aike_nATC CSCS



State –

South Carolina Commission on Higher Education
1122 Lady Street, Suite 400
Columbia, SC 29201

To Whom It May Concern:
I am writing to offer my full endorsement of the University of South Carolina Aiken's proposal to establish a fully online Master of Science in Exercise and Sports Science with an emphasis in Strength and Conditioning. This program represents a timely and much-needed advancement in the preparation of qualified professionals in the field of sport science.

As an athletic director at the secondary school level, I recognize firsthand the growing importance of having qualified strength and conditioning coaches, who are not only passionate about athlete development, but also trained to apply the latest evidence-based practices. USC Aiken's proposed program, grounded in the National Strength and Conditioning Association's CASCE-accredited curriculum standards, will help ensure that graduates will be well-equipped to lead and elevate athletic performance while prioritizing athlete safety.

Moreover, this program aligns with the goals and vision of both the National High School Strength Coaches Association (NHSSCA) and the South Carolina High School Strength Coaches Association (SCHSSCA), which advocate for certified strength and conditioning professionals in our high schools. These organizations recognize that properly trained coaches are essential for promoting athlete safety, implementing developmentally appropriate training techniques, and reducing the risk of injury.

The flexibility of the online format makes this program accessible to working professionals across the state, including educators and coaches like those within our own school community who are eager to further their education without sacrificing their current roles. The integration of practicum experiences and mentorship opportunities will provide students with real-world application essential for impactful leadership.

I strongly support this initiative and believe it will have a positive and far-reaching impact on strength and conditioning services in schools, universities, and athletic programs throughout South Carolina and beyond.



Sincerely, Garrett Knight
Athletic Director- Westwood High School
President- South Carolina High School Strength Coaches Association

National –

June 11, 2025

To Whom It May Concern,

I am writing this letter to support Dr. Andrew Hatchett in his endeavor to launch an online Master of Science program with specialization in Strength and Conditioning.
As CEO of USA Masters Weightlifting and as an Olympic Team Member (1980) and Head Olympic Coach (2000, 2004), it has been my privilege to get to know and work with Andrew, who is the Chair of the Department of Exercise and Sports Science at the University of South Carolina Aiken.

Dr. Hatchett has recognized that many of our participants in weightlifting, including both athletes and coaches have lacked the training necessary to help them be successful in the sport of Olympic weightlifting.

Weightlifting has grown tremendously over the last few years with the introduction of CrossFit, Grid Sports and others, giving people of all ages and backgrounds exposure to the movements involved in weightlifting and strength and conditioning. Unfortunately, with this onslaught of growth in this field, information is everywhere! Everyone on the internet claims to be an expert offering training advice and YouTube instruction without any level of expertise or certifications.

This program that Dr. Hatchett is offering can fill the growing demand for qualified strength and conditioning instruction, giving our community of weightlifters the proper instruction and technique needed to continue in this sport. Dr. Hatchett has my full support and the support of the USA Masters Weightlifting board of directors in this endeavor.
Sincerely,

Michael Cohen
CEO USA Masters Weightlifting
5 Kuck Lane
Savannah, GA 31406
912-663-5833 or mastersweightliftingusa@gmail.com