

New Program Proposal

**Bachelor of Science in Exercise and Sport Science
with tracks in Exercise Science, Medical Fitness, and Strength and Conditioning**

**to be offered by the
School of Education of the
University of South Carolina Upstate**

**Tom Moore, Chancellor
University of South Carolina Upstate**

**Harris Pastides, President
University of South Carolina**

Submitted May, 2013

**Contact information for the program:
Benjamin J. Snyder, bsnyder@uscupstate.edu, 864-503-5528**

CLASSIFICATION

Name of proposed program:	Bachelor of Science in Exercise and Sport Science Tracks in Exercise Science, Medical Fitness, and Strength and Conditioning
Academic Unit Involved:	School of Education
Designation, type, and year)	Bachelor of Science, Undergraduate, 120 hours (4 year)
level of degree:	
Proposed date of implementation:	August 2014
CIP Code:	13.1314
New CIP Code:	26.0908
Identification of Program:	New Program
Site:	USC Upstate Spartanburg Campus
Program qualifies for supple- mental Palmetto Fellows and LIFE Scholarship awards:	Yes
Delivery mode:	Traditional

INSTITUTIONAL APPROVAL

School of Education faculty: Feb. 22, 1013
Academic Affairs Committee: April 5, 2013
Faculty Senate: April 26, 2013
Board of Trustees: October 4, 2013

PURPOSE

This new program request is to convert the degree of B.S. Ed in Physical Education with a concentration in Exercise and Sport Science into a B.S. in Exercise and Sport Science (EXSC) with tracks in Exercise Science, Medical Fitness, and Strength and Conditioning, and an option for additional coursework in Health Sciences. The existing degree prepares students for careers in strength and conditioning, fitness, and personal training, with preparation for graduate study in exercise physiology, sports nutrition, cardiac rehabilitation, physical therapy, occupational therapy and other health related professions.

The objectives of the program in its new incarnation will remain largely the same, with the new degree allowing more advanced preparation for key career options. Objectives of the new program are as follows:

- Students will have a comprehensive basic knowledge of the scientific underpinnings of the field of Exercise and Sport Science, particularly basic biology, chemistry, anatomy, physiology, exercise physiology, and biomechanics.
- Students will have comprehensive research and science-based knowledge of an additional specialized field of their choosing: Medical Fitness, Strength and Conditioning, or Exercise Science.
- Students will be able to read and interpret research in the fields of exercise physiology, biomechanics, and in their chosen focus area (track).
- Students will learn and demonstrate critical thinking skills as they relate to information in the fields of Exercise and Sport Science.

- Students, in collaboration with faculty, will engage in original research as part of a capstone experience.
- Students will demonstrate an understanding of professionalism, including participation in professional organizations.
- Students will have the ability to measure a variety of fitness and performance-related values in a variety of individuals, both healthy and unhealthy.
- Students will have the ability to design and execute fitness and performance training programs for a variety of individuals, both healthy and unhealthy.
- To provide a curricular plan for students prepare to take three national certification exams: the National Strength and Conditioning Association's (NSCA) Certified Strength and Conditioning Specialist (CSCS) exam, the American College of Sports Medicine's (ACSM) Health and Fitness Specialist (HFS) exam, and the American Sport Education Program's Coaching Principles certificate.

JUSTIFICATION

Although the CHE-approved program modification was needed to allow the program to address several glaring deficiencies in the degree (most importantly a lack of adherence to any national standards), the evolving job market, changing student interests and unexpectedly strong demand for the degree has forced a re-evaluation of the curriculum. In particular, there is growing recognition among students that an Exercise Science degree is an acceptable and sometimes preferred starting point for entry into a variety of allied health fields. However, the lack of a standalone degree at USC Upstate may give students pause when selecting their major, and be cause for concern for graduate school admissions committees. In addition, while the current degree provides adequate training for a variety of jobs within the Exercise and Sport Science marketplace, it has become clear that creating a new degree with distinct academic tracks will better prepare students for the most promising and sustainable segments of the job market. The proposed new degree would: 1) offer more curricular options and more in-depth training for incoming students, 2) better prepare students for their specific career by enhancing relevant content and removing less relevant content, 3) improve students' chances for entry into graduate school by awarding a more accepted standalone B.S. degree, 4) allow qualified majors to be eligible for the additional \$2,500 from the enhanced Life Scholarship, and 5) address growing class size issues by diversifying our curricular options. As the commission will be aware, several programs in the state, including College of Charleston, Citadel, Winthrop, and Coastal Carolina have recently been approved for similar changes.

Need for the program in the state

Exercise and Sport Science is a field that encompasses a variety of careers, from general fitness-related professions to more specific professions in exercise physiology, cardiac rehabilitation, nutrition, and sport strength and conditioning. Other health-related professions, including physical therapy, have their roots in Exercise Science, and physical therapy programs regularly accept applicants with an undergraduate degree in that field. Figures from the Bureau of Labor Statistics (Table 1) predict very robust job growth in all of these areas, indicating continuing opportunities for graduates of the program. Fitness Trainers, the largest category from Table 1, and the most easily accessible profession for graduates, refers to all individuals who guide clients in the implementation of a fitness, wellness, or strength program. Unfortunately, most fitness professionals lack sufficient training to deal with the growing group of individuals with symptoms or history of serious chronic diseases. Recently, more fitness facilities are offering programs specifically for individuals with disease history or with multiple risk factors, creating a need for fitness professionals to have more training to deal with these 'special populations'; the Medical Fitness Association's website (www.medicalfitness.org) currently lists 23 certified

facilities (16 of those on the east coast) that follow the association’s advice on integrating healthcare and preventative/rehabilitative fitness programs. As this trend continues, the preparation of ‘fitness trainers’ must become more specialized. It is our hope to capitalize on this trend by offering a Medical Fitness track in which students would gain clinical knowledge and skills that would enable them to safely treat those higher risk clients.

Table 1: JOBS OUTLOOK FOR FITNESS AND RELATED FIELDS*

Occupational Title	Employment, 2010	Projected Increase, 2010-2020
Fitness trainers or instructors (includes str./cond. professionals)	251,400	24% (Faster than average)
Physical therapists	198,600	39% (Much faster than average)
Physical therapy assistant	114,400	45% (Much faster than average)
Respiratory therapist	112,700	28% (Faster than average)
Occupational therapist	108,800	33% (Much faster than average)
Dietitians and nutritionists	64,400	20% (Faster than average)
Athletic trainer	18,200	30% (Much faster than average)
Total fitness related jobs	868,500	

*From the Bureau of Labor Statistics (www.bls.gov)

Even fitness trainers who do not deal with ‘unhealthy’ clients are expected to seek more advanced credentials than previously, and with good reason: A study by Malek (2002) shows a substantial difference in fitness knowledge between trainers with and without bachelor’s degrees in the field. In addition, individuals with certifications from either the ACSM or the NSCA are even more knowledgeable than those with only a bachelor’s degree. Because of this, there is a growing requirement for a bachelor’s degree and/or certification for employment as a fitness trainer, increasing the need for programs like the one now proposed.

Perhaps the best indicator of the need for this program is the growing number of students enrolled in the program in its current form as a ‘concentration’. In 2009, 46 students were enrolled in what was then a ‘Fitness-Recreation’ concentration. Since then the number of majors has increased by more than 60%, with approximately 75 students in the Exercise and Sport Science concentration as of fall of 2012. Based on the strong response to the previous program modification, and with the further enhancements now proposed in the new program, it is reasonable to expect sustained demand and even continued growth, especially if the job market continues to be robust.

Centrality of the Program to the Mission of USC Upstate

Viewed in context, the Physical Education program’s mission and objectives to provide a professional education to its students that will allow them to contribute to the needs of the community are clearly aligned with the mission of the University as a whole to be recognized as

a leading metropolitan university, providing a practical education to students that match the needs of the local and regional economy. Because of the growing demand for professionals in fitness and related health fields, there is no doubt that the proposed program will match the needs of the community and thus the mission of the University.

Relationship of the proposed program to existing programs

Currently, four classes in the curriculum are taken by both students in PE Teacher Education and students in the Exercise and Sport Science curriculum, and as such, content is designed to address the needs of both populations. Two of our full-time faculty (one tenure-track and one non-tenure track) teach these 'overlap' courses. This arrangement will remain in place if the new program is approved, and one additional course (SPED 315: Outdoor Sports) will be available to students in both degrees, taught by our full-time non tenure-track faculty member. Upon approval of the new degree, the Exercise and Sport Science concentration within the existing B.S. Ed. in Physical Education will be terminated and all current students transitioned into the new degree. Since the new degree includes an option for a track in general Exercise Science that is essentially 15 hours of electives, all students will be able to continue their degrees unchanged if they desire. The Physical Education Teacher Education track will be unchanged and will now be the only option in the B.S. Ed in Physical Education.

Similar programs in the state

The SC Commission on Higher Education lists eight other undergraduate programs in Exercise Science and two in Exercise Physiology in the state of South Carolina, only two of which are in the geographical area that USC Upstate serves. Anderson University is a private, religiously-affiliated university with just under 2,500 students and serves a different population than USC Upstate. Their curriculum is basic Kinesiology with a strong natural science component, but no specific tracks, and little advanced coursework in specific disciplines. Winthrop, with an undergraduate student population of approximately 4,900, is located in the Upstate, but a 1.5 hour drive from Spartanburg and 2 hours from Greenville, too far for most potential students to commute. The curriculum at Winthrop University offers most of the advanced coursework found in our proposal (with the exception of an advanced strength and conditioning class), but does not offer the flexibility of focused tracks like the proposed curriculum. Students are required to complete a 51 hour 'Exercise Science Core' and a 15 hour 'Scientific Foundation Core', and then choose from additional 15 hours of mostly natural science electives.

The other Exercise Science programs in the state are Lander (Physical Education and Exercise Studies), USC-Aiken (Exercise and Sport Science), Coastal Carolina (Exercise and Sport Science), Citadel (Health, Exercise and Sport Science), Coker College (Physical Education and Sport Studies) and Southern Wesleyan (Exercise Science). USC Columbia (Exercise Science) and College of Charleston (Exercise Science) are categorized as 'Exercise Physiology' by CHE.

National perspective and uniqueness of the program

Nationwide, there are nearly 70 programs that are recognized by the National Strength and Conditioning Association's Education Recognition Program, which certifies schools as having adequate curriculum for preparation of students for strength and conditioning careers. Only two, USC Upstate and Limestone College (which does not grant an Exercise Science degree) are located in South Carolina. Our unique collaboration with the Athletics department allows students extensive hands-on experience with athletes and exposure to the strength program design process for this population. The addition of the Advanced Strength and Conditioning class will allow for even more in-depth preparation for students entering this burgeoning field.

Medical Fitness is an emerging field, and it is likely that the Medical Fitness track in the proposed degree would be among the first in the nation. There are a number of graduate programs focused specifically on cardiac rehabilitation (a sub-field of medical fitness) or in related clinical fields, but fewer undergraduate programs with a clinical focus. In the larger field of exercise science, there are no comprehensive listings for undergraduate programs, but the Committee on Accreditation for the Exercise Sciences, the field’s largest accrediting body, lists 31 programs nationwide (none in South Carolina), although there are many more that have not sought this accreditation.

We feel strongly that our geographic location, low tuition, the availability of three distinct, focused tracks with the option for additional coursework in Health Sciences, and the very strong job growth in the fields addressed by these tracks as projected by the Bureau of Labor Statistics provide more than adequate support for a new Exercise and Sport Science degree program at USC Upstate, especially given the program’s already robust enrollment in its current form as a ‘concentration’.

ADMISSIONS CRITERIA

There will be no specific criteria for entry in to the program aside from those required by the university for continued enrollment in the school. These are: 1.50 GPA for students with 24-44 credit hours, 1.75 GPA for students with 45-59 credit hours, and 2.0 GPA for students with 60 or more credit hours. There is a standard suspension and appeal process in place for students who do not meet these standards.

ENROLLMENT

The average increase in enrollment in the Exercise and Sport Science concentration since 2009, just before the program modification, to the projected enrollment in spring of 2013 was 18% per year. Presuming a more modest 10% per year growth rate from the date of submission to the expected implementation date of the program, we predict an initial headcount of 88 students (80 non-freshmen) in 2014-15. Estimated total enrollments after that are based on yearly 10% increases in enrollment in the major, which include 4-5 transfers from other majors (mostly from biology or nursing), 3-4 students leaving the major, and students new to the program counted beginning in their sophomore year, the first year in which they will take major courses. Credit hours are based on a projected 4 year plan for a student pursuing the ‘Exercise Science’ track, which generates similar credit hours to the other three tracks, and an estimate that in any given year, 20% of our students are seniors, 40% juniors, and 30% are sophomores and 10% freshmen.

Table 2: PROJECTED TOTAL ENROLLMENT

Year	Fall		Spring		Summer	
	*Headcount	**Credit Hours	Headcount	Credit Hours	Headcount	Credit Hours
2014 – 15	80	485	80	558	25	75
2015 – 16	89	531	89	606	27	81
2016 – 17	96	586	96	669	30	90
2017 – 18	105	641	105	732	34	102
2018 – 19	116	715	116	819	37	111

*Does not include freshmen, who generate no Exercise and Sport Science credit hours. Based on recent trends, no loss of students from fall to spring is assumed, and all yearly increases are included in the fall headcount.

**Credit hours generated from Exercise and Sport Science classes only.

CURRICULUM

The core curriculum and tracks are based on relevant national standards for each field. The Strength and Conditioning track exceeds the guidelines set out by the NSCA and its Education Recognition Program (<http://www.nasca.com/Education/Programs/Education-Recognition-Program/>), of which the program at Upstate is already a recognized member. The Medical Fitness track was designed to address all Knowledge Skills and Abilities (KSA's) recommended by the ACSM (ACSM, 2010) for achievement of its Health Fitness Specialist certification. These KSA's are identical to the recommendations of the Committee on Accreditation for Exercise Science (CoAES), whose accreditation the program will seek if the new degree is approved. In addition, the KSA's for preparation for the ACSM's Certified Clinical Exercise Specialist are also addressed, with the exception that graduates of the program will need to accrue at least 600 hours of experience in a clinical exercise program before taking the exam. The Health Sciences emphasis allows for the completion of prerequisites for physical therapy and physician assistant. This emphasis functions only as an additional area of inquiry and will not appear on the transcript, a fact which will be made clear in all marketing materials and directly to advisees. In addition to their classes, students will be required to take either the ACSM's Health Fitness Specialist or NSCA's Certified Strength and Conditioning Specialist exam. This will provide an excellent integrative experience as well as providing a solid assessment tool to gauge overall student learning in the field.

In comparing the proposed new degree with the existing degree, it should be noted that although there are seven new courses associated with the new degree, students moving from the existing concentration into the new degree would take as few as one new class (an expanded senior capstone class – EXSC 499), or as many as four of the new classes if they choose the medical fitness track. This is because the new courses are spread across the three academic tracks rather than being required for all students.

New courses

EDPH 315: Outdoor Sports (3) Study of outdoor sports and pursuits. Includes participation in the scope and sequence of skill development in at least two outdoor sports, including hiking, backpacking, orienteering, survival skills, geocaching, and rock climbing.

EDPH 325: Principles of Coaching (3) General understanding of the philosophies and ideologies of coaching. Includes in-depth research based discussion on coaching responsibilities related to: motivation, discipline, sportsmanship, development of the whole student athlete as a person, organization, game management, and the coach as a teacher. Students are required to complete the American Sport Education Program's 'Coaching Principles' exam, and if successful, will receive ASEP certification in Coaching Principles and be listed in the National Coaches Registry.

EXSC 355: Lifestyle-Related Disease (3) Epidemiology and pathophysiology of diseases linked to lifestyle choices. The effect of physical activity as an important preventative measure is discussed.

EXSC 401: Advanced Exercise Physiology (4) Advanced study in Exercise Physiology. Includes in-depth research-based discussion of the response of the human body to physical stress and long term anaerobic and aerobic training. Includes such topics such as

thermoregulation, performance at altitude and selected detraining. Three class and two lab hours per week. Prerequisite: EXSC 301.

EXSC 456: Clinical Exercise Testing and Prescription (4) Exercise and risk factor reduction for individuals with current or previous lifestyle-related or other chronic disease states. Stress testing, electrocardiography, and prescription of rehabilitative exercise programs will be examined. Prerequisite: EXSC 301, EXSC 455.

EXSC 467: Advanced Strength and Conditioning (3) Advanced program design and conditioning concepts. Prerequisite: EXSC 457.

EXSC 499: Research Seminar (3) Integration of Exercise and Sport Science-related knowledge through involvement in the research process. May include IRB approval process, data collection and analysis, and verbal presentation of research results. Prerequisites: Senior Standing and 15 hours of upper level coursework in the major with a grade of 'C' or above.

BACHELOR OF SCIENCE
Major in Exercise and Sport Science
Proposed PROGRAM OF STUDY

Student's Name: _____ Catalog Year: _____

Student ID: _____ Advisor: _____

	Hours	Grade	Term
General Education Requirements			
I. Communication			
ENGL 101	(3)	_____	_____
ENGL 102	(3)	_____	_____
SPCH 201	(3)	_____	_____
II. Mathematics, Logic & Natural Science			
MATH 120 or higher (MATH 127 recommended for Health Sciences)	(3)	_____	_____
MATH 102	(3)	_____	_____
CHEM 109/L or CHEM 111/L	(4)	_____	_____
III. Information Technology			
CSCI 138	(3)	_____	_____
IV. Fine Arts, Humanities, & History			
<i>One course selected from:</i> ARTH 101, 105, 106; MUSC 110 or THEA 161	(3)	_____	_____
<i>One course selected from:</i> AFAM 204: AMST 101, 102; ENGL 250, 252, 275, 279, 280, 283, 289, 290, 291; PHIL 102, 211; RELG 103	(3)	_____	_____
<i>One course selected from:</i> HIST 101, 102, 105, 106	(3)	_____	_____
V. Foreign Language and Culture			
Foreign Language 101	(3)	_____	_____
VI. Social and Behavioral Sciences			
1 course from AFAM 201, ANTH 102, ECON 221, 222, GEOG 101, 103, POLI 101, 200, 320; SOCY 101, or WGST 101	(3)	_____	_____
PSYC 101: Introduction to Psychology	(3)	_____	_____
VII. General Education Electives			
BIOL 110/L or BIOL 101/L recommended. Other interdisciplinary science course accepted with advisor approval.	(4)	_____	_____

Major Course Requirements¹

Sport Science Core (required for all majors)	Prerequisites			
EDHL 170: First Aid	---	(1)	_____	_____
EDHL 221: Lifelong Health and Wellness	---	(3)	_____	_____
BIOL 232: Human Anatomy		(4)	_____	_____
BIOL 242: Human Physiology	SBIO 232, SCHM 109 or 111	(4)	_____	_____
EDPH 128: Aerobics OR	---	(1)	_____	_____
EDPH 180: Swimming OR	---			
EDPH 280: Swimming and Water Safety	---			
EXSC 270: Introduction to Athletic Training	SBIO 232	(3)	_____	_____
EXSC 301: Exercise Physiology	SBIO 232,242	(4)	_____	_____
EXSC 302: Biomechanics	SBIO 232	(3)	_____	_____
EXSC 390: Field Experience	---	(3)	_____	_____
EXSC 455: Fitness Assessment and Prescription	SPED 301	(4)	_____	_____
OR				
EXSC 457: Essentials of Strength and Conditioning	SPED 120,301,302	(3)	_____	_____
EXSC 480: Internship	SPED 390, Junior	(6)	_____	_____
EXSC 499: Senior Seminar	Senior	(3)	_____	_____

One of the following Academic Tracks

Exercise Science (15)

Choose **15 credit hours** from the following:

*EDPH 315 (3), *EDPH 320 (3), *EDPH 415 (3), EDPH 325 (3), EXSC 355 (3), EXSC 401 (4), EXSC 456 (4), EXSC 459 (3), EXSC 467 (3), CHEM 331 (4), CHEM 332 (4). *No more than two of the 'sports' courses may be taken for major credit.

	Prerequisites	Hours	Grade	Term
_____		()	_____	_____
_____		()	_____	_____
_____		()	_____	_____
_____		()	_____	_____
_____		()	_____	_____

Medical Fitness (11)

EXSC 401: Advanced Exercise Physiology	EXSC 301	(4)	_____	_____
EXSC 355: Lifestyle-Related Diseases		(3)	_____	_____
EXSC 456: Clinical Exercise Testing and Prescription	EXSC 301, EXSC 455	(4)	_____	_____

Strength and Conditioning (16)

EDPH 120: Strength and Conditioning Techniques	Coreq w/ EXSC 457	(1)	_____	_____
EDPH 325: Principles of Coaching	---	(3)	_____	_____
EDPH 320: Team Sports I	---	(3)	_____	_____
EDPH 415: Individual/Dual Sports	---	(3)	_____	_____
EXSC 459: Sport Nutrition	EXSC 301	(3)	_____	_____
EXSC 467: Advanced Strength and Conditioning	EXSC 457	(3)	_____	_____

Exercise and Sport Science majors must select either a minor (18-24 hours) or the Health Sciences Emphasis^{1,3,4}

Minor

18-24

_____	()	_____	_____
_____	()	_____	_____
_____	()	_____	_____
_____	()	_____	_____
_____	()	_____	_____
_____	()	_____	_____

OR

Health Sciences Emphasis

15-19²

_____	()	_____	_____
_____	()	_____	_____
_____	()	_____	_____
_____	()	_____	_____
_____	()	_____	_____
_____	()	_____	_____

Certification Exam

(0)

All students, regardless of academic track, must register for either the ACSM 'Health Fitness Specialist' or NSCA 'Certified Strength and Conditioning Specialist' exam before graduation. A passing score is not required in order to receive the degree.

Electives

1-12

_____	()	_____	_____
_____	()	_____	_____
_____	()	_____	_____
_____	()	_____	_____
_____	()	_____	_____

Total hours required

120

Final responsibility for satisfying degree requirements, as outlined in the *USC Upstate Academic Catalog*, rests with the student.

¹A minimum grade of C is required in all coursework.

²Courses must be approved in advance by the student's major advisor, and must fulfill the prerequisites for graduate study in Health Sciences: Physical Therapy or Physician Assistant.

³Up to 6 hours of General Education (<300 level) may be used to satisfy requirements of a minor.

⁴Students completing a minor in business may not take more than 6 hours of electives in Johnson College of Business and Economics courses.

ASSESSMENT

The program’s assessment plan is outlined below. Some goals and objectives will be specific to a student’s chosen academic track: Exercise Science, Medical Fitness, or Strength and Conditioning.

Table 3: ASSESSMENT PLAN

Goal 1	Students will exhibit thorough and accurate knowledge in their chosen academic track.
Objectives	1.1: Students will understand and apply discipline-specific scientific and theoretical concepts critical to acting as professionals in their chosen field.
Assessment method	1.1a: Exams averages in representative core basic classes: EXSC 301 and 302. 1.1b: Exam averages in representative core integrative class: EXSC 455 or 457. 1.1c: National certification exam: ACSM HFS or NSCA CSCS. 1.1d: Skills test in EXSC 455 or 457.
Assessment criteria	1.1a: 80% of students will achieve an average of 70% or higher on all exams for each class. 1.1b: 80% of students will achieve an average of 70% or higher on all exams for each class. 1.1c: Passing standards for the national and state exams, as determined by the certifying body, will be followed. For the national certification exam, it is expected that our students will meet or exceed the national pass rate. Records of certification or content exams taken and successfully completed will be maintained by the faculty. 1.1d: 100% of students will achieve a score of 80% or above on the skills test.
Remedial action if standard not achieved	1.1a-1.1b: Faculty will make comparisons to recent semesters’ performances. Faculty will examine teaching techniques and content and identify any differences from past semesters. 1.1c: Content of relevant classes for national exam will be reviewed to insure proper coverage and rigor of recommended content. Students will be given extra practice materials and more guidance on preparation for exams. 1.1d: Students will receive more guided practice on skills.
Goal 2	Graduating students will understand the essential elements of professionalism.

Objectives	<p>2.1: Students will exhibit the ability to perform at an acceptable level in a pre-professional environment, such as an internship.</p> <p>2.2: Students will demonstrate an understanding of the importance of involvement in professional organizations and/or activities.</p> <p>2.3: Graduates of the program will be employed in an Exercise and Sport Science field.</p>
Assessment method	<p>2.1: Internship supervisor survey</p> <p>2.2: Professional involvement indicators</p> <p>2.3: Three-year job placement survey</p>
Assessment criteria	<p>2.1: It is expected that 80% of students will receive a 4 or 5 (5 being the highest) on all survey questions.</p> <p>2.2: All graduating seniors must have completed two indicators of professional involvement from among the following:</p> <ul style="list-style-type: none"> a) Attendance at a local, state, regional, or national professional conference (can attend more than once). b) Presentation of research at a local, state, regional, or national professional conference (can present more than once). c) Membership in a field-related state, regional, or national professional organization d) Completion of an approved professional certification exam (can complete more than one). e) Other comparable professional activities as approved by the program chair. <p>2.3: It is expected that 50% of the most recent year`s graduates will have secured employment or a position in a graduate school in an Exercise Science-related field, while 70% of those two years after graduating, and 80% of those three years after graduating will have done so.</p>
Remedial action if standard not achieved	<p>2.1: If multiple students fail to meet the standard, internship supervisors will be solicited for advice on recommended areas for improvement. Any area that shows multiple student failures will receive immediate corrective action, including addressing that area across the curriculum.</p> <p>2.2: Students will receive multiple reminders about the requirement via direct contact during advising or email. Promotional materials will be increased.</p> <p>2.3: Representatives from local employers will be polled to learn of needed areas for improvement for our graduates in comparison to graduates from other institutions. Economic indicators will also be taken into account.</p>

Goal 3	Students will understand the importance of peer-reviewed scientific research to their activities as professionals.
Objectives	3.1. Students will demonstrate critical thinking and scientific writing skills via their understanding of peer-reviewed research in the field.
Assessment method	3.1a: Literature review on the current semester's topic in EXSC 499: Research Seminar 3.1b: Research article quizzes in EXSC 499.
Assessment criteria	3.1a: All students will achieve at least an 80% score on the literature review, according to the rubric. 3.1b: All students will achieve an average of score 80% on the research article quizzes.
Remedial action if standard not achieved	3.1a: Instructor will meet with individual students regarding their performance, making adjustments to key areas as identified in these discussions. Students will be referred to the writing center on a more frequent basis. 3.1b: There will be increased class discussion about how to review a research article.

FACULTY

One additional full-time instructor will be added to the staff to support the proposed program. This individual will primarily address the need for clinical instruction in the medical fitness track, and must therefore have work experience in a clinical setting, in addition to a Master's degree in exercise physiology or a strongly related field. This individual will be advising students on preparations for the American College of Sports Medicine's Health Fitness Specialist exam and must therefore hold that certification.

Table 4: FACULTY QUALIFICATIONS

List of staff by rank	Highest Degree Earned	Field of Study	Teaching in Field (Yes/No)
Assistant Professor #1	Ph.D.	Exercise Physiology	Yes
Assistant Professor #2	Ph.D.	Curriculum and Instruction	Yes
Full-Time Instructor #1	M.S.	Clinical Exercise Physiology	Yes
Full-Time Instructor #2	M.S.	Physical Education Teaching	Yes
Adjunct #1	M.S.	Athletic Training, Strength and Conditioning	Yes
Adjunct #2	M.S.	Athletic Training	Yes

The table below lists the teaching assignments of current faculty in the program as well as the new faculty member. The full-time assistant professor listed there receives 3 credits of release time per semester to fulfill administrative duties, and full-time instructors are required to teach 15 credit hours per semester. Two instructors listed are trained in Physical Education, but are qualified to teach certain core classes for Exercise and Sport Science majors.

Table 5: FACULTY TEACHING ASSIGNMENTS

Staff	Fall Semester Class (hours)	Spring Semester Class (hours)
Assistant Prof. #1 (existing)	EXSC 301: Exercise Physiology (4) EXSC 303: Advanced Exercise Physiology (4) EXSC 499: Research Seminar (3)	EXSC 302: Biomechanics (3) EDPH 304: Motor Learning (3) EXSC 499: Research Seminar (3) EXSC 459: Sport Nutrition (3)
Assistant Prof. #2 (existing)	EDPH 325: Principles of Coaching (3) EDPH 312: Teaching Secondary PE (4) EDPH 200: Foundations of PE (3) EDPH 460: Theory and Practice in PE (3)	EDPH 453: Organization and Admin. of PE (3) EDPH 405: Teaching Elementary PE (4) EDPH 462: PE for the Exceptional Child (3) EDPH 460: Theory and Practice in PE (3)
Full-time instructor #1 (existing)	EDHL 221: Lifelong Health/Wellness (3) EDPH 320: Team Sports I (3) EDPH 415: Individual Sports (3) EXSC 390: Field Experience (3) EDPH 235: Dance and Gymnastics (3)	EDPH 320: Team Sports I (3) EDPH 415: Individual Sports (3) EDPH 420: Team Sports II (3) EDPH 445: Measurement and Evaluation (3) EXSC 390: Field Experience (3) EDPH 315: Outdoor Sports (3) *Summer only
Full-time instructor #2 (new)	EXSC 456: Clin Exercise Test and Prescrip (4) EXSC 455: Fitness Assess./Prescrip. (4) EDHL 221: Lifelong Health/Wellness (3) EDHL 334: The School Health Prog. (3)	EXSC 480: Internship in Exercise Science (6) EXSC 355: Lifestyle Related Diseases (3) EDHL 221: Lifelong Health/Wellness x 2 (6) EDHL 170: First Aid (1.5)
Adjunct #1 (existing)	EXSC 467: Advanced Strength and Cond. (3)	EDPH 120: Str/Cond Techniques (1.5) EXSC 457: Essentials Str/Cond (3)
Adjunct #2 (existing)		EXSC 270: Intro to Athletic Training (3)

*Classes that are required either in the core or in a specific academic track in the new program are highlighted in green.

Faculty development

Faculty are provided with both opportunity and tools for professional development. Each full-time faculty member has access to funds through both competitive and non-competitive processes on a yearly basis for research and professional development purposes. Faculty are occasionally granted release time for alternate duties. For example, each unit within the School of Education (including Physical Education) has a coordinator that is granted 3 hours of release time per semester to take on these duties.

Full time equivalency

Full time tenure-track faculty are defined as teaching 12 credit hours per semester, while full-time non tenure-track faculty teach 15 credit hours per semester. Courses granting 1 credit hour are counted as 1.5 hours towards the faculty member's load. In table 6 below, FTE is calculated as the number credit hours that an instructor teaches for the EXSC program as a fraction of their full load as illustrated in table 5 above. For adjuncts, the fraction of credit hours out of 15 hours per semester was used. Staff FTE's were not subdivided, as it is impossible to calculate

the fraction that each contribute to the program as opposed to other programs in the School of Education. Instead, the number of staff was simply listed as is. FTE for staff/administrators is 37.5 hours per week.

Table 6: UNIT ADMINISTRATION, FACULTY AND STAFF SUPPORT

YEAR	NEW		EXISTING		TOTAL	
	Headcount	FTE	Headcount	FTE	Headcount	FTE
Administration						
2014 – 15	0	0	2	2.0	2.0	2.0
2015 – 16	0	0	2	2.0	2.0	2.0
2016 – 17	0	0	2	2.0	2.0	2.0
2017 – 18	0	0	2	2.0	2.0	2.0
2018 – 19	0	0	2	2.0	2.0	2.0
Faculty						
2014 – 15	1	0.9	5	2.175	6	3.075
2015 – 16	0	0	6	3.075	6	3.075
2016 – 17	0	0	6	3.075	6	3.075
2017 – 18	0	0	6	3.075	6	3.075
2018 – 19	0	0	6	3.075	6	3.075
Staff						
2014 – 15	0	0	4	4.0	4	4.0
2015 – 16	0	0	4	4.0	4	4.0
2016 – 17	0	0	4	4.0	4	4.0
2017 – 18	0	0	4	4.0	4	4.0
2018 – 19	0	0	4	4.0	4	4.0

PHYSICAL PLANT

The new program will have no effect on the ability of the existing physical plant to support the program. No new facilities or modifications to existing facilities are needed as a result of the new program. The program currently has a designated lab space and ancillary facilities that adequately support the mission and objectives of the program.

EQUIPMENT

The program currently maintains a Human Performance Laboratory with necessary equipment to support a full lab curriculum and basic student and faculty research. Current equipment includes a Biopac MP35 physiologic data collection system, a 3-camera high-speed video analysis system, a Monark bike ergometer, and other small equipment needed for basic instruction. New equipment acquisitions as necessary for instruction and research will be financed with lab fees and grants.

LIBRARY RESOURCES

The USC Upstate Library provides access to 241,000 volumes and 730 journal subscriptions, and contains 22 publically available reference computers. A general use computer lab with 36 workstations is also available and the library is open a total of 82.5 hours per week with on-site and via email reference available. Circulation, reserves, interlibrary loan, and loan through Partnership Among South Carolina Academic Libraries (PASCAL) is available to faculty and students.

In addition to the physical volumes, there are 32,000 electronic books, 29,000 full-text electronic journals and access to 190 databases available online on campus and via a proxy

server off-campus. The library offers informational sessions for instructors and students on request.

Library resources are currently adequate to address research and reference needs for the fields of strength and conditioning. The current program includes content in this area and no deficiencies have been identified. However, some new material must be procured to address the needs of students pursuing the medical fitness track. We have identified 8-10 textbooks and one journal (*Journal of Cardiopulmonary Rehabilitation and Prevention*) that will address these needs. Library personnel have provided procurement information that is included in the new costs table below.

ACCREDITATION, APPROVAL, LICENSURE, OR CERTIFICATION

Although the program is housed within the School of Education, there are no requirements for programs in Exercise and Sport Science to be individually accredited by any local or national body. The program will likely apply for accreditation by the Committee on Accreditation for Exercise Science (CoAES) in 2015-16. This application is based on the recognized benefits of accreditation for students and the program as a whole and is not required. However, the success of the application is tied to the approval of the new program, and the proposed curricular changes are guided in part by accreditation standards from the ACSM.

Students are not currently required to be licensed or certified to be employed in those careers that require only a bachelor's degree. However, preparations for three national certifications, as outlined in the program objectives, will be included in the new program. The curriculum for these classes is based on the listed expectations of knowledge, skills and abilities by the certifying bodies involved, and students will have an excellent chance of success if they successfully complete the classes with a reasonable grade. In the new program, all students will be required to take at least one of these preparatory courses, and then complete either the ACSM HFS exam or the NSCA CSCS exam. Graduation from the program will not be dependent on success on the exam.

ARTICULATION

Because of the high rate of transfer students to USC Upstate (the highest among all public universities in South Carolina), the University places a high priority on making the transition to our campus as seamless as possible. The recent creation of the 'Upstate Direct Connect' program affirms this goal. According to Admissions office documentation, the program assures that, "any student who graduates with an AA, AS or select AAS from Greenville Tech, Spartanburg Community College, or Spartanburg Methodist College is guaranteed admission to the University of South Carolina Upstate." Students in the program are also given enhanced advising, priority registration and the opportunity for concurrent enrollment in classes at Upstate after completing 45 hours. This program should improve our already robust transfer admissions and help to further ease the transition from community college to the Upstate campus.

ESTIMATED NEW COSTS

No new “unique cost” or state appropriations will be required or requested.

Table 7: ESTIMATED COSTS AND SOURCES OF FINANCING BY YEAR						
All sources of Financing by Year						
CATEGORY	1 st	2 nd	3 rd	4 th	5 th	TOTALS
*Tuition Funding \$402/hr	\$449,436	\$489,636	\$540,690	\$582,096	\$661,290	\$2,723,148
Program-Specific Fees	0	0	0	0	0	0
State Funding	0	0	0	0	0	0
Reallocation of Existing Funds	0	0	0	0	0	0
Federal Funding	0	0	0	0	0	0
Other Funding (Specify)	0	0	0	0	0	0
TOTALS	\$449,436	\$489,636	\$540,690	\$582,096	\$661,290	\$2,723,148
Estimated Total Costs by Year						
Program Administration	0	0	0	0	0	0
Faculty Salaries	\$192,625	\$192,625	\$192,625	\$197,827	\$197,827	\$973,529
Graduate Assistants	0	0	0	0	0	0
Clerical/Support Personnel	0	0	0	0	0	0
Supplies and Materials	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$5,000
Library Resources	\$3779	\$3873	\$3980	\$4091	\$4195	\$19,918
Equipment	0	0	0	0	0	0
Facilities	0	0	0	0	0	0
Other (Identify)	0	0	0	0	0	0
TOTALS	\$197,404	\$197,498	\$197,605	\$202,918	\$203,022	\$998,447

* Tuition dollars generated from all students, assuming flat tuition growth. Tuition is calculated from Exercise Science only credit hours, increasing on average 9.19% per year.

** Approximately 31% of costs are attributable to the new program, 17% of new revenues due to new program.

REFERENCES

American College of Sports Medicine. (2010) ACSM’s Guidelines for Exercise Testing and Prescription, 8th ed. Lippincott Williams &Wilkins, Baltimore, MD.

Malek MH, Nalbone DP, Berger DE, Coburn JW. (2002) Importance of health science education for personal fitness trainers. *Journal of Strength and Conditioning Research*. 16(1):19-24.

Institutional Approval

Dr. Jim Charles, Dean
USC Upstate, School of Education

Date

Dr. Jeannie Chapman, Chair
USC Upstate, Academic Affairs Committee

Date

Dr. David Ferris, Chair
USC Upstate Faculty Senate

Date

Dr. Charles Harrington, Senior Vice Chancellor
University of South Carolina Upstate

Date

Dr. Tom Moore, Chancellor
University of South Carolina Upstate

Date

Dr. Harris Pastides, President
University of South Carolina

Date

Mr. Thad H. Westbrook, Chair
Academic Affairs and Faculty Liaison Committee
Board of Trustees
University of South Carolina

Date

Mr. Eugene P. Warr, Jr., Chair
Board of Trustees
University of South Carolina

Date