UNC
COLLEGE OF
ARTS & SCIENCES

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

DEPARTMENT OF EXERCISE & SPORT SCIENCE

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DARIN A. PADUA, PhD, ATC
Professor & Chair

October 21, 2013

Bobbi Owen
Senior Associate Dean for Undergraduate Education, and
Michael R. McVaugh Distinguished Professor of Dramatic Art
University of North Carolina at Chapel Hill
CB# 3504, 3011 Steele Building
214 East Cameron Avenue
Chapel Hill, NC 27599-3504

Dear Dean Owen and Member of the Administrative Board:

I am writing to express my enthusiasm and full support for the approval of the Bachelor of Science degree proposal in Exercise and Sport Science (BS-EXSS). The BS-EXSS degree proposal is the culmination of three years of planning by the faculty in the Department of Exercise and Sport Science. We are excited about the potential of offering this degree to our students at UNC Chapel Hill. In addition, we believe that the BS-EXSS degree will fill an important educational need for those interested in pursuing careers in medicine and allied health sciences.

The concept for developing the BS-EXSS degree arose based on information collected from the undergraduate students as well as recent trends in healthcare. For each of the past 4 years we have surveyed our graduating students, from the Department of Exercise and Sport Science. Our department is currently the 3rd largest in the Natural Sciences and 6th largest overall in the College of Arts and Sciences. Over the past 4 years, we have gathered information from over 800 students through surveys administered to our graduating students. Over 50% of these students indicate the strong desire for development of the BS-EXSS degree. They further state they would have pursued such a BS-EXSS degree if available. These students commonly state their professional goals pertain to pursuing graduate education in the medical and allied health science fields of study. Thus, a degree program with added emphasis in these areas, while also fulfilling key pre-requisites for medical and allied health science graduate programs, would be highly valued by the UNC Chapel Hill student population.

The BS-EXSS degree would also be novel and impactful by addressing the growing need to develop well-educated medical and health professionals with expertise in exercise prescription as preventive medicine. Many chronic diseases, such as cardiovascular disease, diabetes and low back pain, are linked to lack of exercise and

physical inactivity. In addition, properly prescribed exercise and physical activity has been shown to have profound effects on improving the quality of life in those with chronic disease and preventing chronic disease from developing. The economic consequences of chronic disease are large. The World Health Organization estimates the medical costs of the United States alone will reach over $303 billion by 2015. In addition to the economic consequences, chronic disease accounts for 60% of deaths worldwide. Despite the large body of scientific evidence showing the positive impact of exercise/physical activity to prevent and treat chronic disease, only 32% of adults in the USA regularly engage in regular exercise/physical activity.

Physicians and other health professionals are not trained in exercise prescription or prevention of chronic diseases. Recent research indicates that only 10% of graduating medical students could properly design an exercise program. Furthermore, only 6% of medical schools provide a core course that addresses standard exercise testing and prescription materials. Thus, there is currently little support for physician- and other health professional-directed preventive activities. As such there is a great need for undergraduate programs to emphasize the science of physical activity and exercise prescription to future medical and health care professionals. The BS-EXSS degree would meet this important need by providing students with the requisite background knowledge and skill to develop proper exercise and nutrition/dietary programs to prevent chronic disease from developing.

The faculty of the Department of Exercise and Sport Science are committed to seeing the BS-EXSS degree succeed. We have developed three new course proposals that build on existing EXSS course materials, and provide more insight into the relationship between exercise/physical activity with healthy living and chronic disease prevention. These courses include Functional Anatomy; Exercise Endocrinology; and Neuromechanics, and address the roles of the musculoskeletal, endocrine, and nervous systems in injury, disease, and optimal human performance. Based on our years of analysis and preparation, we are confident in our ability to offer these new courses in conjunction with our current degree offerings. We also have support from the Departments of Biology; Chemistry; Mathematics; and Physics. These departments offer courses that will be required for students pursuing the BS-EXSS degree. Furthermore, we do no anticipate any additional financial costs, as we believe the majority of future BS-EXSS degree students will be comprised of those students from the exist BA-EXSS degree. In summary, we have developed key advanced courses within EXSS, we have full support from other departments providing required courses, and we do not anticipate any added costs to the university. Thus, we do not foresee any major barriers to prohibit the development of the BS-EXSS degree.

Given the student demand and societal importance of the content provided within the BS-EXSS degree, we believe that the timing is right to the BS-EXSS degree to our

students. Thank you for considering our request to offer the BS-EXSS degree and create new and impactful educational opportunities for the students of UNC Chapel Hill.

Sincerely,

Darin A. Padua, PhD, ATC
Professor and Chair
Department of Exercise and Sport Science

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October 3, 2013

Bobbi Owen
Senior Associate Dean for Undergraduate Education, and
Michael R. McVaugh Distinguished Professor of Dramatic Art
University of North Carolina at Chapel Hill
CB# 3504, 3011 Steele Building
214 East Cameron Avenue
Chapel Hill, NC 27599-3504

Dear Dean Owen and Member of the Administrative Board:

We write to let you know that the College enthusiastically supports the proposal for a new Bachelor of Science degree in Exercise and Sport Science. This is an initiative which began three years ago, and has been carefully and strategically developed to meet the needs of a growing cohort of students in the Department of Exercise and Sport Science (EXSS) interested in, and needing, a science driven curriculum. Professor Meredith Petschauer, along with the EXSS curriculum committee, has worked with us at every step of the way. We are convinced the new program will be an important addition to the undergraduate offerings at UNC-Chapel Hill.

As described in the proposal, the department has been transformed over the past 15 years into more of a natural science curriculum. The current Bachelor of Arts (BA) degree program evolved from the former Physical Education Department in response to an emerging need for more in-depth scientific study of exercise and sport, and now has many characteristics of Bachelor of Science (BS) degree programs. Exercise and Sport Science is an applied science focused on human movement with a purpose of enhancing quality of life. The proposed degree program will complement programs in Applied Sciences, Biomedical Engineering, Physics, Biology, and Psychology. Additionally, it will provide an EXSS degree option more suited for students interested in pursuing graduate school in the allied health sciences and medical professions.

We believe the proposed BS degree program has an innovative curriculum for a degree program in an emerging field with clear application and relevance. As evidenced by the letters of support from the other natural science departments, students enrolled in the EXSS BS degree will have access to the necessary courses from outside the department. From within the department, the curriculum benefits from an impressive record of teaching and research in several sub-disciplines of Exercise and Sport Science – to include exercise physiology, biomechanics, neuromechanics, athletic training, and sport psychology. The extensive research conducted by the department's curriculum committee has led us to the conclusion that the BS degree will be of great interest to a motivated and high achieving group of UNC undergraduate students.

We are committed to working with Darin Padua, department chair, Sherry Salyer, director of undergraduate studies, and related EXSS faculty to ensure that students understand the differences between the BA and BS options, and can successfully complete the program in 8 semesters at UNC. We do not anticipate any additional financial costs associated with the new degree program, as the majority of future BS students will be comprised of those currently enrolled in the EXSS BA program, and who are already taking allied

science course electives. There are a few new upper level courses which will eventually be submitted for approval to the College, and help ensure sufficient EXSS course offerings as this degree option becomes more popular. In the meantime, we are confident that the necessary resources are in place to move forward with the degree program in 2014-15.

Thank you for your consideration of this exciting and new opportunity for our Carolina undergraduate students.

Sincerely,

Kevin Guskiewicz
Senior Associate Dean for Natural Sciences, College of Arts and Sciences
Kenan Distinguished Professor of Exercise and Sport Science

Karen Gil
Dean, College of Arts and Sciences
Lee G. Pedersen Distinguished Professor of Psychology

APPENDIX C

UNIVERSITY OF NORTH CAROLINA

REQUEST FOR AUTHORIZATION TO ESTABLISH A NEW DEGREE PROGRAM

INSTRUCTIONS: Each proposal should include a 2-3 page executive summary. The signature of the Chancellor is required. Please submit one hard copy and an electronic copy of the proposal to the Office of the Senior Vice President of Academic Affairs at UNC General Administration.

Date: _____

Constituent Institution: **University of North Carolina-Chapel Hill**

CIP Discipline Specialty Title: **Kinesiology and Exercise Science**

CIP Discipline Specialty Number: **31.0505 Level: B _X__** M ___ 1st Prof ___ D ___

Exact Title of the Proposed Degree: **B.S. in Exercise and Sport Science**

Exact Degree Abbreviation (e.g. B.S., B.A., M.A., M.S., Ed.D., Ph.D.): __**BS**_____

Does the proposed program constitute a substantive change as defined by SACS? Yes _____ No __X__

The current SACS Substantive Change Policy Statement may be viewed at:
http://www.sacscoc.org/pdf/081705/Substantive%20Change%20policy.pdf

If yes, please briefly explain.
Proposed date to establish degree program: *Month* _____ *Year* _____

Are there plans to offer all or a portion of this program to students off-campus or online? Yes _____ No __X__

If yes, complete the form to be used to request establishment of a distance education program and submit it along with this request.

Note: If a degree program has not been approved by the Board of Governors, its approval for alternative, online, or distance delivery must wait until BOG program approval is received. (400.1.1[R], page 3)

[1]This Appendix C supersedes the preceding Appendix C entitled, "Request for Authorization to Establish a New Degree Program," adopted May 6, 2009.

I. DESCRIPTION OF THE PROGRAM

A. Describe the proposed degree program (i.e., its nature, scope, and intended audience).

The Department of Exercise and Sport Science (EXSS) at UNC Chapel Hill proposes a new degree program: Bachelor of Science in Exercise and Sport Science (BS-EXSS). The nature of the BS-EXSS degree is to prepare undergraduate students for careers within the medical and allied health sciences. A unique and important aspect of the BS-EXSS degree will be the focus on the role of exercise, nutrition and behavior modification in preventing and treating disease / injury and improving quality of life.

The BS-EXSS degree at UNC Chapel Hill will be novel and impactful by addressing the growing need to develop well-educated medical and allied health professionals (e.g. physicians, physical therapists, occupational therapists, physician assistants, etc.) with expertise in exercise prescription, nutrition and behavior modification as foundations for preventive medicine. Many chronic diseases, such as cardiovascular disease, diabetes, cancer, neurocognitive decline, and arthritis are linked to a lack of exercise / physical activity and poor dietary habits. In addition, properly prescribed exercise / physical activity and diet are known to have profound effects on preventing chronic disease and improving the quality of life in those who suffer from chronic disease.

The negative consequences of chronic disease are devastating. The World Health Organization estimates, in the United States alone, the medical costs associated with treating chronic diseases will reach over $303 billion by 2015. In addition to the economic consequences, chronic disease accounts for 60% of deaths worldwide. Despite the large body of scientific evidence showing the positive impact of proper exercise/physical activity, nutrition and healthy behaviors to prevent and treat chronic disease, only 32% of adults in the USA regularly engage in regular exercise/physical activity. Thus, there is a great need to educate future medical and allied health professionals on evidence based strategies for incorporating exercise and nutrition as primary interventions for preventing and treating chronic diseases.

Unfortunately, students within medical and allied health programs are not educated on the integration of proper exercise, nutrition and behavior modification strategies to prevent and treat chronic diseases. Recent research indicates that only 10% of graduating medical students could properly design an exercise program. Furthermore, only 6% of medical schools provide a core course that addresses standard exercise testing and prescription materials. Thus, there is currently little support for physician- and allied health professional-directed preventive medicine activities.

Based on this information, it is clear that future health and allied health professionals require education in the science of physical activity/exercise prescription, nutrition and behavior modification. The BS-EXSS degree would directly meet this unfilled need, and provide students with the requisite knowledge to develop proper exercise and nutrition/dietary programs for preventing and managing chronic disease and injury.

Currently, the EXSS Department offers a Bachelor of Arts (BA) degree in Exercise and Sport Science. The BA degree in EXSS evolved from the original Physical Education degree program. The mission of the original Physical Education degree program was to develop teachers of motor skill development. In the late 1970's, greater emphasis was placed on understanding overall health, as well as human performance, given the growing body of knowledge in these areas of study. Today, the focus of the BA degree in EXSS has evolved to understanding the anatomic, physiologic, neuromuscular, psychological, and biomechanical factors associated with human performance. The BA degree in EXSS provides an excellent foundation for those interested in human performance; however, the

majorities of students in the BA degree in EXSS are interested in pursuing medical and allied health careers. Development of a BS-EXSS degree would meet this need of current and future students.

The target student population for the BS-EXSS degree will be undergraduates committed to a career path in the medical or allied health sciences. We anticipate approximately 450 will ultimately pursue the BS-EXSS degree. We arrive at this number, as there are currently ~800 students who are declared as EXSS majors. Over the past four years, 55% of graduating EXSS majors indicated they would have pursued a BS-EXSS degree, given their goals of pursuing careers in medical, allied health or exercise sciences. The BS-EXSS degree will efficiently and effectively prepare students for careers in fields, such as physical therapy, occupational therapy, physician's assistant, medicine, as just a few examples. Additionally this degree will prepare students to be actively engaged in research.

B. List the educational objectives of the program.

1. Students will be able to interpret and apply current and major topics in Exercise and Sport Science.

2. Students will be able to demonstrate proficiency in the design, application and interpretation of research methods and scientific data commonly used in Exercise and Sport Science.

3. Students will be prepared to pursue graduate education and/or employment in areas related to Exercise and Sport Science, especially those related to medical and allied health sciences.

4. Students will become familiar with the content and approach of the natural sciences and how these concepts are integrated into exercise and sport science.

C. Describe the relationship of the program to other programs currently offered at the proposing institution, including the common use of:

1. Courses
2. Faculty
3. Facilities, and
4. Other resources

The current BA degree in Exercise and Sport Science is a unique major, truly the only undergraduate major focused on human performance at UNC Chapel Hill. The focus on human performance has been the most attractive element in the program for many of our current students pursuing the BA degree in EXSS. The proposed BS-EXSS degree would include some of the same coursework as the BA degree in EXSS; however, the BS-EXSS degree will intensify the science with new advanced courses focused on integrating exercise, nutrition and behavior modification knowledge into the context of the medical and allied health sciences. We are planning to offer three new courses in our department to support the BS-EXSS degree. These courses include: 1) Functional Anatomy and Biomechanics, 2) Endocrinology and 3) Neuromechanics of Human Movement.

Students interested in pre-medicine, physical therapy, occupational therapy, athletic training, sports psychology, biomechanics/ergonomics, and cardiac rehabilitation will likely comprise the population who pursue the proposed BS-EXSS degree. We anticipate the majority of future BS-EXSS degree students to be comprised of those who are currently

declared as majors in the BA degree in EXSS, and are taking medical and allied health science course electives. As such, we do not anticipate the proposed BS-EXSS degree will negatively impact the number of declared majors in other departments.

We also do not anticipate the BS-EXSS degree would necessitate any additional faculty hires or development of new facilities. We currently have the required faculty and facilities to offer the existing and new courses that would support the BS-EXSS degree. Thus, this would be a relatively cost neutral addition to our overall curriculum in Exercise and Sport Science.

D. Identify opportunities for collaboration with institutions offering related degrees and discuss what steps have or will be taken to actively pursue those opportunities where appropriate and advantageous.

Most of our peer institutions and those within the UNC system offer a BS degree in Exercise Science or Kinesiology. In addition, we are the only department to not offer a BS degree in the Natural Sciences at UNC Chapel Hill. By offering the BS-EXSS degree at UNC Chapel Hill, we better align ourselves with other departments in the Natural Sciences at UNC Chapel Hill, as well as, other UNC system campuses and our peer institutions offering related degree programs.

The BS-EXSS degree at UNC Chapel Hill would be unique from other existing programs across UNC system campuses and our peer institutions. UNC Chapel Hill is the only UNC system campus, and one of the few universities amongst our peer institutions, to have academic units in Exercise and Sport Science, Medicine, Allied Health Sciences, Public Health, Nutrition, and Biomedical Engineering. Our faculty is actively engaged in collaborative research and educational programs in each of these academic units. Thus, the EXSS faculty at UNC Chapel Hill has expertise in integrating the science of exercise, nutrition and sport with these other academic units. The interdisciplinary collaborations with other UNC Chapel Hill academic units will create a highly impactful educational experience for students in the BS-EXSS degree, which is not possible at other UNC system campuses and few peer institutions.

Given the unique opportunities for interdisciplinary education and research collaborations at UNC Chapel Hill, we believe that the BS-EXSS degree at UNC Chapel Hill will be highly sought after for collaborations with institutions offering related degrees. Our faculty is open and excited to develop these collaborations and help lead the way forward in how to best integrate exercise and sport science content into the education and training of medical and allied health professionals.

II. JUSTIFICATION FOR THE PROGRAM - NARRATIVE STATEMENT

A. Describe the proposed program as it relates to:

1. Institutional mission
2. Strategic plan

The very first theme in the academic plan is "Work as an integrated university to attract, challenge, and inspire students through transformative academic experiences." Part of this includes continuing to challenge undergraduate students to advance their knowledge. The Bachelor of Science degree program will enable Exercise and Sport Science to offer a more in-depth science driven undergraduate program to students preparing for graduate programs and careers in medical or allied health sciences. One of the unique features of the program is the ability to provide an in-depth didactic foundation of science based curriculum while incorporating experiential and application components, such as applied biomechanics and assessment of fitness, neuromuscular control, injury and the nutritional aspects applied to sport and exercise.

The second theme in the academic plan is related to recruitment, development, and retention of faculty. We are fortunate to have recruited young dynamic faculty over the past 8 years who have strengthened our teaching and research efforts within EXSS; and recently have retained strong faculty who were being actively pursued by other top ranked institutions. Nevertheless we have identified through our strategic planning process the need to more carefully cultivate, mentor and develop our junior faculty so that we might enable them to become successful academicians who contribute fully to the university mission. It is imperative that we continue to recruit new faculty who will strengthen our ability to 1) meet the student instructional and advisement demands associated with increasing enrollment in EXSS, and 2) increase research grant productivity among our faculty. The inclusion of a BS-EXSS degree strengthens our curriculum and program offerings and becomes an attraction for the best and brightest UNC Chapel Hill undergraduates. This in turn will help to recruit and retain the most talented faculty in EXSS.

The third theme is to promote "interdisciplinary teaching, research and public engagement." Our faculty values interdisciplinary teaching and research as evidenced by the number of faculty holding joint or adjunct appointments in departments within the Schools of Medicine (7), Public Health (1) and Law (1). These faculty members teach and conduct research in areas related to nutrition and cell-molecular physiology, orthopedic injuries, neurologic dysfunction, physical disabilities, and epidemiology of diseases related to physical inactivity. The BS-EXSS degree will allow more exposure for undergraduate students to faculty and clinicians involved with interdisciplinary programs and their respective research. Furthermore, through the addition of the allied health classes students can experience the integration of the sciences and become involved in this interdisciplinary research.

3. Responsiveness to local, regional, or statewide needs

Given the emphasis on the sciences both nationally and at UNC, a BS-EXSS degree is fitting and appropriate. As Americans continue to gain weight and exhibit unhealthy behaviors, the demand for medical, allied health, and exercise and sport science professionals will continue to escalate. Examination of national trends shows an increase in demand for health professions in general, and specifically for individuals educated in exercise, nutrition, behavior modification, and human performance who are capable of assuming leadership roles in physical activity, research, teaching, medical, and health settings.

4. Student demand. Discuss the extent to which students will be drawn from a pool of students not previously served by the institution

A large portion of the current BA students in EXSS pursue medical school and allied health professions. Those students take many medical and allied health science prerequisite classes to be eligible to pursue graduate / professional degrees in these areas of study. During the Spring 2006 semester, an internal review of student interest surveys revealed a strong positive desire to pursue a BS degree in EXSS, if it were developed. The department was then granted the approval to plan in 2008. Since that time, a self study/external review process confirmed the need for such a program to satisfy the future academic goals of current and future students in Exercise and Sport Science. During the past several years we have surveyed our graduates, with 55% indicating that they would be interested in pursuing the BS degree rather than the BA. This would mean that we would have approximately 100-110 students graduate annually with the BS-EXSS degree instead of the BA. Given this information, we think that the BS will satisfy the needs of students in EXSS without drawing in majors from other departments.

In addition to meeting the needs of Exercise and Sport Science students, the BS-EXSS degree will also serve students who seek to understand the application of exercise, nutrition and behavior modification within the context of medical and allied health applications. As previously mentioned, this is becoming an increasingly important aspect of preventive medicine giving the rapidly rising rates of chronic disease (e.g. cardiovascular disease, diabetes, etc.), arthritis, cancer, and neurocognitive decline. Each of these are associated with lack of proper exercise and nutrition prescription and poor lifestyle behaviors. Currently, medical and allied health science programs do not focus on this body of knowledge. Thus, the BS-EXSS degree would provide a unique and critical educational experience for students who desire to pursue graduate or professional training in the medical and allied health sciences.

5. Employment opportunities. Document need for proposed degree recipients in the region, the state, or nationally

Graduates of the BS in EXSS will be prepared to enter graduate programs in the medical, allied health and biomedical sciences. We believe that this will align well with the values of UNC Chapel Hill, given that 70% of undergraduates from the College of Arts and Sciences at UNC Chapel Hill go on to pursue a graduate/profession degree within 10 years of graduation. The BS-EXSS degree program will help establish the foundation of these fast growing fields. The national trends show an increasing demand for individuals with expertise in medical, allied health and biomedical sciences who are capable of assuming leadership roles in physical activity, research, teaching and clinical application. Thus, students who graduate with a BS-EXSS degree will be highly competitive for top graduate and professional programs in the medical and allied health sciences. In addition, they will be prepared to seek employment in areas such as cardiac rehabilitation, exercise physiology, health and wellness instruction, biomechanics and ergonomics, athletic and health administration, exercise and sport consulting (conference services, nutritional supplements, sporting attire manufacturers, sporting shoes, sporting equipment, etc.), and recreation and leisure. Lastly, students with a BS-EXSS degree will be well prepared to develop entrepreneurial initiatives in areas of health, medicine, exercise, nutrition, and sports.

B. Discuss potential program duplication, program competitiveness, and opportunities for collaboration in the delivery of the program

1. Identify similar programs offered by public and private universities elsewhere in North Carolina. Indicate how the proposed new degree program differs from other programs like it within UNC. If the program duplicates other UNC programs, explain:

a. Why the proposed program is necessary or justified, and

b. How all or portions of the curriculum might be offered collaboratively with another UNC institution.

Just as all universities have departments of English, History, and Mathematics, so do these same institutions have Exercise and Sport Science departments and majors - they simply might be called something different depending on the institution. For example, at UNC-G and East Carolina the Exercise and Sport Science departments are housed in the School of Health and Human Performance. At Appalachian State University, The Department of Health, Leisure and Exercise Science reside in the College of Fine and Applied Arts, while at UNCW our colleagues are housed in the Department of Health and Applied Human Sciences. With the exception of the North Carolina School of the Arts and North Carolina State University, the other fourteen state institutions all have an equivalent to our Exercise and Sport Science department and major. While there are similarities between BS-EXSS degree at UNC Chapel Hill and programs at other UNC system campuses, our program is unique as we are housed within the College of Arts and Sciences at UNC Chapel Hill. The EXSS Department at UNC Chapel Hill is one of the few Exercise Science / Kinesiology

departments within the UNC system to be housed within a college of arts and sciences. We will be able to offer those students who desire a liberal arts type of degree, and a career in the medical or allied health sciences, the opportunity to do so through the BS-EXSS degree at UNC Chapel Hill.

The BS-EXSS degree at UNC Chapel Hill will also be unique from degrees in Exercise Science / Kinesiology at other UNC system campuses and our peer institutions in other ways. First, none the other UNC system campuses, and only a few of our peer institutions, have the ability to foster intra-campus collaborations with faculty in the School of Medicine; Allied Health Sciences (Physical Therapy & Occupational Therapy); Public Health; Nutrition; and Biomedical Engineering. We are uniquely positioned to provide an interdisciplinary and collaborative approach for applying exercise and sport science content within the context of the medical and allied health sciences. Second, nearly all Exercise Science / Kinesiology degree programs offer core courses in the areas of Human Anatomy, Physiology, Exercise Physiology, Motor Control/Learning, and Biomechanics. The BS-EXSS degree at UNC Chapel Hill will be similar in this respect. However, as part of the BS-EXSS degree we are developing advanced courses in Functional Anatomy and Biomechanics, Neuromechanics of Human Movement, and Endocrinology. The BS-EXSS degree at UNC Chapel Hill will be further distinguished from others as none of the Exercise Science / Kinesiology degrees offered by other UNC system campuses or our peer institutions provide this combination of core courses and advanced level courses. Thus, graduates from the BS-EXSS degree at UNC Chapel Hill will have a unique knowledge base that is not redundant with other programs in Exercise Science / Kinesiology.

Students pursuing the BS-EXSS degree at UNC Chapel Hill will have the unique opportunity to learn from and work with leaders in Exercise and Sport Science, who are applying their research and expertise to solving critical issues in the medical and allied health sciences. Our faculties are renowned for their research in areas such as:

- **Concussion / traumatic brain injury (Kevin Guskiewicz; Jason Mihalik)**
- **Musculoskeletal injury prevention and rehabilitation (Troy Blackburn; Joseph Myers; Darin Padua; Meredith Petschauer; Brian Pietrosimone; William Prentice)**
- **Cancer prevention and rehabilitation (Claudio Battaglini; Diane Groff; Anthony Hackney)**
- **Prevention and treatment of chronic diseases associated with obesity (Abbie Smith-Ryan; Anthony Hackney)**
- **Neurocognitive decline (Bonita Marks)**
- **Arthritis prevention and rehabilitation (Troy Blackburn; Darin Padua; Brian Pietrosimone).**

Thus, students pursuing the BS-EXSS degree at UNC Chapel Hill will be exposed to the latest and most impactful educational information, as our faculty strives to directly translate their research to the classroom.

2. If the program is a graduate or first professional degree, compare it with other similar programs in public and private universities in North Carolina, in the region, and in the nation. Where appropriate, describe how all licensure or professional accreditation standards will be met, including required practica, internships, and supervised clinical experiences.

N/A

C. Enrollment (baccalaureate programs should include only upper division majors, that is, juniors and seniors).

Headcount enrollment

Show a four-year history of enrollments and degrees awarded in similar programs offered at other UNC institutions (using the format below for each institution with a similar program); indicate which of these institutions you consulted regarding their experience with student demand and job placement. Indicate how their experiences influenced your enrollment projections.

Please see attached Spreadsheet.

Institution:

_____

Program Title:

_____

	(year)	(year)	(year)	(year)
Enrollment				
Degrees-awarded				

Please indicate the anticipated first year and fourth year steady-state enrollment (head count) for the proposed program.

Year 1: Full Time __55___ Part-time __2-3___ Total __60___

Year 4: Full-time __100__ Part-time __2-3___ Total __110___

III. PROGRAM REQUIREMENTS AND CURRICULUM

A. Program Planning

1. List the names of institutions with similar offerings regarded as high quality programs by the developers of the proposed program.

University of Virginia (UNC Peer Institution)

University of Wisconsin – Madison (UNC Peer Institution)

University of Texas – Austin (UNC Peer Institution)

University of Pittsburgh (UNC Peer Institution)

University of Minnesota (UNC Peer Institution)

University of Maryland (UNC Peer Institution)

University of Michigan (UNC Peer Institution)

University of Illinois

Wake Forest University

2. List institutions visited or consulted in developing this proposal. Also discuss or append any consultants' reports or committee findings generated in planning the proposed program.

The institutions listed previously in III A 1 were consulted. The excel spreadsheet attached was used to review degree requirements from other institutions before

discussing the BS-EXSS degree requirements at UNC Chapel Hill. This was performed to ensure we offer appropriate core content, but also provide unique and impact educational experiences that are not offered at other institutions. We are the only public institutions of these schools in the mid-west / east coast without a BS degree in EXSS/Kinesiology. All of the above programs have similar degrees in terms of basic requirements. The elective classes are slightly different and our proposal includes more medical and allied health science courses than many of the other schools. As previously stated, we also are able to offer a unique opportunity for interdisciplinary collaborations given our affiliations with the UNC Chapel Hill School of Medicine; Division of Allied Health Sciences; School of Public Health; Nutrition Department; and Biomedical Engineering Department. As a department, we believe this represents the rigor of UNC Chapel Hill with the appropriate expertise in Exercise and Sport Science and opportunities for interdisciplinary learning experiences within the medical and allied health sciences.

B. Admission. List the following:

1. Admissions requirements for proposed program (indicate minimum requirements and general requirements).

Students are admitted through the regular undergraduate admissions process. There is not a separate application process for this degree program.

2. Documents to be submitted for admission (listing or attach sample).

N/A

C. Degree requirements. List the following:

1. Total hours required. State requirements for Major, Minor, General Education, etc.

Total Core EXSS hours: 18
Total Elective EXSS hours: 9
Total Allied Science hours: 20 (not including MATH 231)
Total Allied Science elective hours: 6

Grand total of hours: 53

2. Other requirements (e.g. residence, comprehensive exams, thesis, dissertation, clinical or field experience, "second major," etc.).

None

For graduate programs only, please also list the following:

3. Proportion of courses open only to graduate students to be required in program
4. Grades required
5. Amount of transfer credit accepted
6. Language and/or research requirements
7. Any time limits for completion

D. For all programs, list existing courses by title and number and indicate (*) those that are required. Include an explanation of numbering system. List (under a heading marked "new") and describe new courses proposed.

Bachelor of Science in Exercise and Sport Science (Revised 4-30-13):

Required Core Courses:

EXSS 175	**Human Anatomy** (3)
EXSS 273	**Research in Exercise and Sport Science** (3) (prerequisite, MATH 110)
EXSS 276	**Human Physiology** (3) (Prerequisite, EXSS 175)
EXSS 376	**Physiological Basis of Human Performance** (3) (prerequisites, EXSS 175, 276, and MATH 110)
EXSS 380	**Neuromuscular Control and Learning** (3)
EXSS 385	**Biomechanics of Sport** (3) (prerequisites, EXSS 175 and MATH 110)

TOTAL CORE HOURS: 18 hours

Required Electives Courses:

Three (9 credits) from the following (6 credits - of which must be above 300):

EXSS 181	**Sport Psychology** (3)
EXSS 188	**Emergency Care of Injuries and Illness** (3)
EXSS 350	**Corrective Exercise Training** (3)
EXSS 360	**Sport Nutrition** (3) (prerequisite, EXSS 276 or NUTR 240)
EXSS 275L	**Human Anatomy Laboratory** (1)
EXSS 580	**Neuromechanics of Human Movement** (3) **-** New Course
EXSS 475	**Functional Anatomy and Biomechanics** (3) **-**New Course
EXSS 576	**Endocrinology** (3) **-**New Course
EXSS 410L	**Exercise Testing** (3) (prerequisites, EXSS 175, 276, and 376)
EXSS 412	**Exercise Prescription** (3) (prerequisites, EXSS 175, 276, and 376)
EXSS 478	**Sports Performance Training** (3)
EXSS 408	**Theory and Application of Strength Training and Conditioning for Fitness Professionals** (3) (prerequisites, EXSS 175 and 276)
EXSS 694H	**Senior Honors Thesis** (3) (prerequisite, EXSS 273, EXSS 693H)

TOTAL ELECTIVE HOURS: 9 hours
18 hours of C or better is required in Core and Elective courses

Allied Sciences (note: 1. These courses were chosen for their relevance to the study of human performance; 2. Students will be advised to be aware of and adhere to course pre-requisites)

Required: **MATH 231** (This is a QR and will be a required course in Foundations)
BIOL 101/101L Principles of Biology (4)
Chem 101/101L General Descriptive Chemistry (4)
Chem 102/102L General Descriptive Chemistry II (4)
Phys 114 General Physics or Phys 118 Mechanics (4)
Phys 115 General Physics II or Phys 119 (4) Electromagnetism and Optics

TOTAL REQUIRED ALLIED SCIENCES HOURS: 20 hours (not including hours from MATH 231)

Two **Electives from the following: (6-9 hours must be from 2 different departments, one of which must be a life science). No special topics courses (i.e., 190) can satisfy this requirement.**

Anthropology
ANTH 143 Human Evolutions and Adaptation (3)
ANTH 148 Human Origins (3)
ANTH 151 Anthropological Perspectives on Food and Culture (3)
ANTH 315 Human Genetics and Evolution (3)
ANTH 317 Evolutionary Perspectives on Human Adaptation and Behavior (3) **(SS)**
ANTH 414 Laboratory Methods: Human Osteology (3)
ANTH 416 Bioarcheology (3) **(SS)**
ANTH 470 Medicine and Anthropology (3) **(SS)**

Biology
Any three credit-hour class above BIOL 101 Principles of Biology, except BIOL 190 Special Topics; 271 Plant Biology; 272 Local Flora; 273 Horticulture

Chemistry
Any three credit-hour class above CHEM *102/102L*, except CHEM 190 Special Topics

Biochemistry
BIOC 107 Introduction to Biochemistry (4)
BIOC 108 Introduction to Biochemistry (4)

Computer Science
COMP 110 (14) Introduction to Programming (3)

Mathematics
Any class above MATH 231 Calculus of Functions of One Variable I

Microbiology
MCRO 251 Introductory Medical Microbiology (4)
MCRO 255 Elementary Pathogenic Microbiology (4)

Nutrition

NUTR 240 Introduction to Human Nutrition (3)

Physiology

PHYI 202 Introduction to Physiology (5) **(prerequisites, CHEM 101 and 102 and BIOL 252)**

Psychology

Any PSYC course above Psyc 101 General Psychology

Statistics

Any STOR course above 155 Introduction to Statistics

TOTAL ALLIED SCIENCES ELECTIVE HOURS: 6-9 hours (2 courses)

Comparison of Bachelor of Arts to Bachelor of Science in EXSS

Bachelor of Arts in EXSS

9 Courses for 27 credits

- EXSS 175 Human Anatomy
- EXSS 188 Emergency Care of Injuries and Illness
- EXSS 220 (Fitness Management) OR EXSS 221 (Introduction to Sport and Recreation Administration)
- EXSS 276 Human Physiology
- EXSS 101 Foundations of EXSS
- EXSS 273 Research in Exercise and Sport Science
- EXSS 376 Physiological Basis of Human Performance
- EXSS 380 Neuromuscular Control and Learning
- EXSS 385 Biomechanics of Sport

Bachelor of Science in EXSS

16 Courses for 53 credits

- EXSS 175 Human Anatomy
- EXSS 276 Human Physiology
- EXSS 273 Research in Exercise and Sport Science
- EXSS 376 Physiological Basis of Human Performance
- EXSS 380 Neuromuscular Control and Learning
- EXSS 385 Biomechanics of Sport
- 3 EXSS electives (2 must be above 300)
- 7 Allied Science Courses (not including MATH 231)

IV. **FACULTY**

A. (For undergraduate and Master's programs) List the names, ranks and home department of faculty members who will be directly involved in the proposed program. The official roster forms approved by SACS may be submitted. For Master's programs, state or attach the criteria that faculty must meet in order to be eligible to teach graduate level courses at your institution.

Faculty in EXSS:

Professor
Kevin Guskiewicz
Anthony Hackney
Bonita Marks
Darin Padua
William Prentice

Associate Professor
Claudio Battaglini
Troy Blackburn
Diane Groff
Joe Myers
Barbara Osborne
Edgar Shields

Assistant Professor
Coyte Cooper
Kristen Kucera
Jason Mihalik
Brian Pietrosimone
Eric Ryan
Abby Smith-Ryan
Erianne Weight

Master Lecturer
Sherry Salyer

Senior Lecturer
Meredith Petschauer

Lecturers
Alain Aguilar
Rebecca Battaglini
Debra Murray
Deborah Southall

Part-Time Lecturers
J.D. Defreese
Lee Schimmelfing
Deborah Stroman

Other faculty include those that teach the allied science classes that the students choose in the departments listed in the allied science section. We have included letters from Chemistry, Biology, Physics and Math in support of the BS in EXSS.

B. (For doctoral programs) List the names, ranks, and home department of each faculty member who will be directly involved in the proposed program. The official roster forms

approved by SACS may be submitted. Provide complete information on each faculty member's education, teaching and research experience, research funding, publications, and experience directing student research including the number of theses and dissertations directed.

N/A

C. Estimate the need for new faculty for the proposed program over the first four years. If the teaching responsibilities for the proposed program will be absorbed in part or in whole by the present faculty, explain how this will be done without weakening existing programs.

The Department of Exercise and Sports Science has steadily grown over the past 10 years. We are now the third largest department in the Natural Sciences and sixth largest in the College. Unfortunately, we have one of the highest student to faculty ratios. Because of this, we are continually requesting new faculty members. We are in need of faculty to meet the demands of our current students. Since we predict that the BS degree will attract motivated and high-achieving current BA Exercise and Sport Science majors and since the BA and BS students will share class space, we do not expect the BS degree to adversely impact faculty time. Therefore we do not anticipate needing many more faculty because of the BS degree. The BS degree is not contingent upon new faculty, rather it will require a redistribution of the faculty loads to work to the strengths of the department.

D. Explain how the program will affect faculty activity, including course load, public service activity, and scholarly research.

The faculty in the department is in full support of this degree because we want to continue to recruit the most motivated and high-achieving students to EXSS and believe this program accomplishes that goal. We are proposing three new upper level classes. Not only do the students benefit from these classes, but the faculty are excited about teaching new courses utilizing some of the recommendations on transforming classes into high engagement, student-centered formats. Over the past 3-4 years, we have established faculty learning communities around some of our courses (Human Anatomy, Human Physiology, and Emergency Care of Injury and Illnesses) which allows us to better train and deploy our doctoral students to teach some of the introductory courses in EXSS. This allows us to continually offer teaching experiences to the doctoral students. With this arrangement, the department can relieve faculty to teach some of these new upper-level courses.

V. LIBRARY

A. Provide a statement as to the adequacy of present library holdings for the proposed program to support the instructional and research needs of this program.

The library resources on UNC-CH campus are more than adequate to meet the needs of the BS degree.

B. State how the library will be improved to meet new program requirements for the next four years. The explanation should discuss the need for books, periodicals, reference material, primary source material, etc. What additional library support must be added to areas supporting the proposed program?

No additional resources are necessary.

C. Discuss the use of other institutional libraries.

Students will have the option to utilize interlibrary loan if they need to.

VI. FACILITIES AND EQUIPMENT

A. Describe facilities available for the proposed program.

The facilities that are currently housed in the EXSS department will be available for this program. Classes will continue to use the existing laboratories and classrooms. The current facilities are sufficient to handle the new proposed courses.

The Department of Exercise and Sport Science is located in Fetzer Hall and Woollen Gym. In addition to classroom space and physical activity area, Fetzer Hall houses 8 well-equipped research and teaching laboratories:

- **Applied Physiology Laboratory: 4000 sq. ft. research facility fully equipped to measure metabolism, body composition, and aerobic fitness, as well as a full chemistry lab to study the biochemistry of exercise. This lab is also used for teaching laboratory methods.**
- **Cadaver Anatomy Laboratory: 600 sq. ft. facility designed to teach cadaver dissection in order to gain a greater knowledge about how the human body works in an athletic environment. We are one of the few departments of Exercise and Sport Science nationally who has a lab of this nature housed directly within its own department.**
- **Exercise Science Teaching Laboratory: 625 sq. ft. teaching laboratory was specifically designed for teaching exercise science laboratory experiences as well as clinical exercise testing experiences. It is equipped with some of the latest clinical equipment to evaluate cardiovascular health and body composition.**
- **Neuromuscular Research Laboratory: 1700 sq. ft. facility equipped with the latest equipment to investigate athletic injuries related to the biomechanics and kinesiology of movement. The focus of the research is on identifying neuromuscular predispositions to injuries in physically active individuals.**
- **Sports Medicine Research Laboratory: 2500 sq. ft. facility equipped with state-of-the-art equipment to track and measure human movement. Its primary research focus is the prevention and treatment of athletic-related injuries, spearheaded with projects investigating lower-extremity injuries such as ACL ruptures and upper extremity injuries such as Little League Elbow.**
- **Matthew Gfeller Sport-Related TBI Research Center: The Center's dedicated clinical research space of over 1,200 sq. ft., offers a variety of state-of-the-art balance assessments (NeuroCom Equitest, NeuroCom Balance Master, and Balance Error Scoring System); neurocognitive assessments (CNS Vital Signs, ImPACT, ANAM, SAC, traditional paper and pencil tests), and other neurological evaluations for assessing and tracking recovery from sport concussion.**
- **Integrated Exercise Oncology Research Laboratory: This lab is designed to investigate the effects of cancer and cancer treatments in various fitness and psychological parameters in cancer patients. The IEOL lab is equipped with Parvo Medics' TrueOne® 2400 metabolic cart, GE Case ECG with a T2100 GE treadmill system, Lode Corival electro-magnetic breaking cycle ergometer, a Renaissance II spirometer, a Lactate Plus portable lactate analyzer, Polar heart rate monitors, Respironics Actical physical activity omnidirectional accelerometer monitors, Dual-Energy X-ray Absorptiometry (DEXA) Hologic Discovery W.**
- **CPR Laboratory: The CPR laboratory is a teaching lab for CPR and first aid skills. The lab is equipped with manikins, AED trainers, and fist aid equipment.**

B. Describe the effect of this new program on existing facilities and indicate whether they will be adequate, both at the commencement of the program and during the next decade.

The current facilities are adequate. If the program grows excessively we would have to explore new lab or classroom space.

C. Describe information technology and services available for the proposed program

Recent renovations to Fetzer Hall and Woollen Gymnasium have opened 8 "smart" classrooms; four in Fetzer (104, 105, 106 and 109) and four in Woollen (301, 302, 303, 304).

D. Describe the effect of this new program on existing information technology and services and indicate whether they will be adequate, both at the commencement of the program and during the next decade.

It is not anticipated that any new information technology and services will be necessary with the implementation of this new degree option.

VII. ADMINISTRATION

Describe how the proposed program will be administered, giving the responsibilities of each department, division, school, or college. Explain any inter-departmental or inter-unit administrative plans. Include an organizational chart showing the "location" of the proposed new program.

The Exercise and Sport Science department is in the division of Natural Sciences and Math in the College of Arts and Sciences. The department reports to Dr. Kevin Guskiewicz, Senior Associate Dean. The proposed BS-EXSS degree will be administered in the same manner as the existing BA in Exercise and Sport Science degree.

- **The Chair, Dr. Darin Padua, is responsible for all Exercise and Sport Science undergraduate and graduate programs.**
- **The Director of Undergraduate Studies, Dr. Sherry Salyer, administers the undergraduate program, both BA and BS degrees.**
- **Currently the BA degree has three track options available for students:**
  - **EXSS-Athletic Training track (coordinator Dr. Meredith Petschauer)**
  - **EXSS-Fitness Professional track (coordinator Mr. Alain Agulair)**
  - **EXSS-Sport Administration track (coordinator Dr. Erianne Weight)**

Additionally, the department has a lecturer who serves as an academic advisor in the Academic Advising Program in College of Arts and Science and the General College. This further exposes and introduces students to the potential offerings in EXSS.

VIII. ACCREDITATION AND LICENSURE

A**.** Indicate the names of all accrediting agencies normally concerned with programs similar to the one proposed. Describe plans to request professional accreditation.

This program will not be seeking professional accreditation.

B. If the new degree program meets the SACS definition for a substantive change, what campus actions need to be completed by what date in order to ensure that the substantive change is reported to SACS on time?

No substantive change.

C. If recipients of the proposed degree will require licensure to practice, explain how program curricula and title are aligned with requirements to "sit" for the licensure exam.

This program is not part of a licensure.

IX. SUPPORTING FIELDS

Are other subject-matter fields at the proposing institution necessary or valuable in support of the proposed program? Is there needed improvement or expansion of these fields? To what extent will such improvement or expansion be necessary for the proposed program?

The BS in EXSS will rely on the other departments in the Natural Sciences and Math Division to provide the coursework necessary to fulfill the allied science requirement for the degree. Many of the current BA students enroll in these classes; therefore we do not anticipate problems. We have also discussed the program with chairs of the science departments and have included a letter of support for the BS degree from these departments. (See attached)

X. ADDITIONAL INFORMATION

Include any additional information deemed pertinent to the review of this new degree program proposal.

XI. BUDGET

Based upon your responses in previous sections, provide estimates of the incremental continuing and one-time costs required to implement the proposed program.

A. Estimates should be provided for the first and fourth years of the program in the following broad categories and be inclusive of applicable employee fringe benefit costs:

1. New Faculty and Instructional Support Staff (including Library)

   $0

   While we do not need new faculty, specific to the BS-EXSS degree program, we will continue to add new faculty to benefit the entire department.

2. New Non-Academic Administrative Support Positions

   $0

3. Recurring Operational Expenses (e.g., supplies, materials, telephone, travel, insurance, library or software subscriptions, equipment maintenance, etc.)

   $10,000 for additional lab materials.

4. One-time expenses for facilities renovations or additions, equipment purchases, library materials, etc.

   $0

B. Based on the campus' estimate of available existing resources or expected non-state financial resources that will support the proposed program (e.g., federal support, private sources, tuition revenue, etc), will the campus:

1. Seek enrollment increase funds or other additional state appropriations (both one-time and recurring) to implement and sustain the proposed program? If so, please elaborate.

   $0

2. Require differential tuition supplements or program-specific fees? If so, please elaborate.

   $0

a. State the amount of tuition differential or program-specific fees that will be requested.

$0

b. Describe specifically how the campus will spend the revenues generated.

None

c. Does the campus request the tuition differential or program-specific fees be approved by the Board of Governors prior to the next Tuition and Fee cycle?

None

B. If additional enrollment increase funding or other state appropriations elaborated above are not forthcoming, can the program still be implemented and sustained and, if so, how will that be accomplished? Please elaborate.

The department, through a fund raising initiative, has already secured these monies.

XII. EVALUATION PLANS

All new degree program proposals must include an evaluation plan which includes:

A. Criteria to be used to evaluate the quality and effectiveness of the program, including academic program student learning outcomes.

The EXSS department surveys students every year upon graduation. This is how the need for BS degree was discovered. We will continue to conduct this survey to determine if our goals are being met. We also will do continued serial assessment of the degree.

B. Measures (metrics) to be used to evaluate the program (include enrollments, number of graduates, and student success).

The program will be measured based on the following student learning outcomes:

1. **Exercise and Sport Science students will be prepared to pursue graduate education and/or employment in more specific areas related to exercise and sport science including allied health sciences and medicine.**
2. **The BS in EXSS will advance the science knowledge of students by including some new, more in depth coursework**
3. **The BS will encourage students to apply those science concepts to exercise in a way that can advance the field of Exercise and Sport Science.**
4. **Students will be satisfied with their learning experience and the degree will help them accomplish their goals.**

Additionally the EXSS department will assess the following objectives:

1. **Graduation rates will be consistent with the university standards.**
2. **The BS in EXSS will have a steady, continual enrolment**
3. **The BS EXSS will demonstrate appropriate rigor that is parallel to BS degrees in the natural sciences and math.**

These objectives and outcomes will be measured through student surveys, enrollment numbers, graduation rates, and continued consultation with other departments and academic units.

C. The plan and schedule to evaluate the proposed new degree program prior to the completion of its fourth year of operation.

We will utilize a similar survey, which is conducted for the BA in Exercise and Sport Science majors, to be completed annually. Additionally, during the 3rd year a self-

assessment of the program will be completed to determine if the BS-EXSS degree program is meeting the goals of the faculty and the needs of the students.

XIII. **REPORTING REQUIREMENTS**

Institutions will be expected to report on new program productivity as a part of the biennial low productivity program review process.

This proposal to establish a new degree program has been reviewed and approved by the appropriate campus committees and authorities.

Chancellor: _____Date:_____

School	Degree/College	Track	EXSS Core Courses	Allied Sciences
University of Illinois	BS College of Applied Health Sciences	Movement Sciences (120)	Study of Movement, Biomechanics, Anatomy, Physiology, Exercise Phys, Exercise psyc, Motor control	Gen Biology, Genetics, Chem I and II, Organic Chem, Calculus I, Research, Physics I and II
		Exercise and Fitness (120)	Study of Movement, Biomechanics, Anatomy, Physiology, Exercise Phys, Exercise psyc, Motor control	Nat science elective, Math reasoning and Precalculus
Texas	BS College of Education	Health Promotion (130)	Anatomy, Exercise Phys, Management of Sport, Evaluation fo Fitness, Health Promotion, Research Methods, Epidemiology in Health Prom , 9 hours more from an approved collection	Math, Intro Bio I and II, Chem I and II, 6 hrs of science elective
University of Wisconsin - Madison	BS School of Education	Exercise Science	Anatomy, Physiology, Exercise, Phys, Biomechancis, Motor Control, First Aid, Research Methods, other electvies	Chem, Physics, Calculus, Stats
UVA	BS School of Education	Kinesiology with Teacher Ed	Anatomy, Biomechanics, Motor Control, Exercise Phys, Health Issues, Motor Dev, Nutrition, other electives	Biol, Calculus, psych
University of Michigan	BS	Movement Science	Research Methods, Anatomy, Biomechanics, Mototr Control, Exercise Phys, other electives	Biol, Calculus, Psyc, Physics
University of Pittsburgh	BS School of Education	Exercise Science	Anatomy, Physiology, Exercise, Phys, Nutrition, Motor Control, First Aid, Research Methods, Health, Strength and Conditioning, Internship	Biol, Chem, general science
Unviersity of Minnesota	BS College of Education	Kinesiology	Anatomy,Physiology, Exercise Physiology, Motor Development, Research Methods, Sport Diversity, 15 credits in Electives.	Biol, Chem, Phys
University of Maryland	BS School of Public Health	Kinesiology	Anatomy, PhysiologyHistory of Sport, Biomechancis, Sport Psychology, Motor Development, Motor Control, Physiology	None

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October 16, 2013

Darin A. Padua, PhD, ATC
Professor and Chair
Department of Exercise and Sport Science

Dear Dr. Padua,

As Chair of the Department of Biology, I support the Department of Exercise and Sport Science's (EXSS) proposal to develop a Bachelor of Science (B.S.) degree. I understand that the following courses, taught through Department of Biology, are required as part of the EXSS B.S. degree proposal:

BIOL 101/101L
Any 3-credit hour BIOL class above BIOL 101, except BIOL 190, 271, 272, or 273

I agree that the Department of Biology is able to accommodate students seeking to enroll in these courses as part of the EXSS B.S. degree.

Sincerely,

Victoria L Bautch, PhD
Professor and Chair of Biology

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DEPARTMENT OF CHEMISTRY

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O 919.962.4358
F 919.962.2388

VALERIE SHEARES ASHBY
Professor and Chair

October 9, 2013

Darin A. Padua, PhD, ATC
Professor and Chair
Department of Exercise and Sport Science

Dear Dr. Padua,

As Chair of the Department of Chemistry, I support the Department of Exercise and Sport Science's (EXSS) proposal to develop a Bachelor of Science (B.S.) degree. I understand that the following courses, taught through Department of Chemistry, are required as part of the EXSS B.S. degree proposal:

CHEM 101/101L General Descriptive Chemistry I (4)
CHEM 102/102L General Descriptive Chemistry II (4)

I agree that the Department of Chemistry is able to accommodate students seeking to enroll in these courses as part of the EXSS B.S. degree.

With best regards,

Valerie S. Ashby

Valerie Sheares Ashby
Professor and Chair
UNC-Chapel Hill, Department of Chemistry

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at CHAPEL HILL
College of Arts and Sciences

Richard M. McLaughlin
Chair
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September 26, 2013

Darin A. Padua, PhD, ATC
Professor and Chair
Department of Exercise and Sport Science

Dear Dr. Padua,

As Chair of the Department of Mathematics, I strongly support the Department of Exercise and Sport Science's (EXSS) proposal to develop a Bachelor of Science (B.S.) degree. I understand that the following courses, taught through Department of Mathematics, are required as part of the EXSS B.S. degree proposal:

MATH 231 Calculus of Functions of One Variable I (3)
(Note: This is a quantitative reasoning course and will be a required course in Foundations)

I agree that the Department of Mathematics is willing to accommodate students seeking to enroll in these courses as part of the EXSS B.S. degree.

Sincerely,

Richard M. McLaughlin, PhD
Professor and Chair
Department of Mathematics

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CHRIS CLEMENS
Department Chair

September 6, 2013

Darin A. Padua, PhD, ATC
Professor and Chair
Department of Exercise and Sport Science

Dear Dr. Padua,

As Chair of the Department of Physics and Astronomy, I support the Department of Exercise and Sport Science's (EXSS) proposal to develop a Bachelor of Science (B.S.) degree. I understand that the following courses, taught through Department of Physics and Astronomy, are required as part of the EXSS B.S. degree proposal:

PHYS 104 General Physics (4) or PHYS 116 Mechanics (4)
PHYS 105 General Physics II (4)or PHYS 117 Electromagnetism and Optics (4)

I confirm that the Department of Physics and Astronomy is able to accommodate students seeking to enroll in these courses as part of the EXSS B.S. degree.

Sincerely,

Chris Clemens, PhD
Professor and Chair
Department of Physics and Astronomy