

Winthrop University

CLASSIFICATION

Name of the proposed program:	Bachelor of Science in Exercise Science
Academic unit involved:	Richard W. Riley College of Education Department of Health and Physical Education
Designation of degree:	Bachelor of Science (4-year)
Proposed date of implementation:	Fall 2008
CIP Code:	31.0505
Identification of program as New or Modification:	New

JUSTIFICATION

Overall Purposes and Objectives of the Program

Currently, Winthrop University has a concentration in Fitness/Wellness under the umbrella of the BS in Physical Education. The request to move to a BS in Exercise Science will allow the department to address two major concerns with the current degree program. The first concern is directly related to student recruitment. The fitness/wellness concentration is not a nationally recognized program so students exploring the field of exercise science do not “find” the current concentration in their web searches. Related to this concern is the lack of a national accreditation for a fitness/wellness concentration. All national accreditation is linked to degree programs in Exercise Science. This modification will allow the department to recruit students into a nationally recognized and accredited degree program.

A second concern is the lack of alignment in the current fitness/wellness concentration with physical therapy, occupational therapy and other allied health graduate programs in the state. Many students who select the fitness/wellness concentration must take additional coursework to meet pre-requisite requirements for those graduate programs. This change to a BS degree in Exercise Science allows the department to align required coursework in the degree program with graduate programs in various allied health fields in the state of South Carolina.

The principal goal of the Exercise Science (EXSC) Program is to provide students with sound academic preparation in the science of human movement. Students will acquire knowledge, skills, and abilities (KSA's) related to the theoretical and practical components of exercise science theory and practice. Graduates will be leaders in the promotion and maintenance of health, physical activity, and fitness within their workplace and community settings or enroll in further study in exercise physiology or allied health graduate professional programs. The proposed curriculum will allow students to complete prerequisites required for physical therapy, occupational therapy, and physician assistant programs.

The BS in Exercise Science is a nationally recognized degree in the discipline. The current Fitness/Wellness concentration is not a recognized degree program and there is no accrediting body for the concentration. By moving to a BS in Exercise Science, the department will be able to seek accreditation for the program and recruit students specifically seeking a degree in exercise science.

Program Goals

Goal 1: Prepare graduates to assess clients' fitness status, and develop and deliver individual and group exercise programs for apparently healthy individuals and persons who have controlled chronic disease.

Goal 2: Prepare graduates to assess lifestyle disease risk factors and health behaviors.

Goal 3: Provide graduates with the needed skills to provide leadership in aiding clients to change negative health behaviors and promote lifelong, positive lifestyle changes.

Goal 4: Prepare graduates with a strong academic foundation in the study of human movement, exercise, and physical activity. This science-based curriculum will qualify students for entry into a health promotion career or for entry into graduate programs in exercise physiology or allied health professional schools.

Goal 5: Serve the local geographic area by developing research and community-based programs promoting physical activity in persons of all ages.

Program Objectives/Learning Outcomes

Departmental core courses provide fundamental concepts and skills in the study of human movement, while the EXSC major courses introduce students to a multidisciplinary approach to the scientific study of exercise and movement. Students may prepare for entry-level positions in the health/fitness industry with the selection of health promotion coursework or for graduate study in exercise physiology or for allied professional school admission with the selection of science-based coursework. All students culminate their undergraduate education with a full-time internship and are qualified to sit for a nationally recognized certification exam.

The objectives of the Winthrop University EXSC program align closely with the Knowledge, Skills and Abilities (KSA) required by the American College of Sports Medicine's (ACSM) Health/Fitness Instructor Certification. These include but are not limited to:

1. Demonstrate knowledge of career options possible with an EXSC degree.
2. Demonstrate knowledge of the physiological, biomechanical, and behavioral responses to exercise.
3. Demonstrate knowledge of path physiology and risk factors for chronic disease, and how these risk factors are modified by exercise.
4. Gain practical skills in health risk appraisal, fitness testing for cardio respiratory fitness, musculoskeletal strength and endurance, body composition, and flexibility, in both apparently healthy persons and for those persons with controlled chronic disease.
5. Demonstrate knowledge of exercise programming for healthy individuals, individuals with controlled chronic disease, group fitness programs, and fitness across age groups.
6. Demonstrate the ability to manage safety and emergency procedures in health and exercise settings.
7. Describe the role of nutrition in health and exercise.
8. Demonstrate knowledge of health behavior theory.
9. Apply health behavior theory to encourage exercise adherence and maintenance.
10. Describe the need for continuing research in exercise science and participate in exercise science research.
11. Assess exercise program effectiveness, program administration, quality assurance, and other outcomes.
12. Apply all the above skills in an internship appropriate for the student's career goals.

Need for the program

National and State Need. With the doubling of obesity over the last 20 years, the Center for Disease Control has declared obesity in the United States as a health crisis. South Carolina's most recent data for 2005, from the Center for Disease Control and Prevention (2007), indicates prevalence of obesity (Body Mass Index of 30 or higher) at 25-29% of the population. South Carolina's neighboring states, North Carolina, Tennessee, and Georgia, are in the same obesity category, along with 13 other states, all in the South or Mid-West. Obesity in youth ages 2-18 years has tripled since 1980 leading to chronic health problems and decreased quality of life (National Center for Health Statistics, 2007). The obesity health crisis is not just limited to the United States. As more societies become industrialized with less daily physical activity and diets high in fat and processed foods (World Health Organization, WHO, 2007), the obesity crisis has become a global concern. To reverse this trend, highly qualified professionals, who have specialized in health promotion and exercise science, are needed.

The U.S. population is aging, and it is estimated there will be 70 million Americans age 65 years and older by the year 2030. Although adults are living longer due to advances in medicine, quality of life has suffered (U.S. Department of Health and Human Services, USDHHS, 2000). The major chronic diseases associated with obesity and aging are lifestyle related: diabetes, heart disease, and certain cancers. Physical activity, or the lack of it, has a major impact on each one of these diseases (USDHHS, 2000). Therefore, increases in obesity in both youth and adults combined with an aging U.S. population justify the need for qualified health and fitness professionals who have the scientific and educational background to:

1. Understand and apply physiological, psychological, and environmental mechanisms to the improvement of overall wellness in the state and nation.
2. Fulfill the critical need for highly qualified health professionals with the skills and knowledge to make an impact on the current health crisis.

The United States Department of Labor's 2006-2007 *Occupational Outlook Handbook* estimates job growth in the fitness industry to be much higher than average through 2014. The need for highly qualified professional at all levels is well documented. Both the public and private sector are seeking individuals to provide leadership in the area of preventative health and wellness.

Industry Need. The rapid population growth in Charlotte, North Carolina and Rock Hill, South Carolina (U.S. Census Bureau) fosters positive job prospects for health and fitness-related employment. Program graduates can be employed in a variety of settings such as health clubs, corporate wellness centers, hospitals, community centers, government, pharmaceutical or medical sales, and self-employment. The impact of the growing population supports the need for more graduates trained in exercise science. The creation of the new degree program will provide opportunities for community education and outreach, with the stated goal of improving quality of life through reduced lifestyle-related risk behaviors.

Studies from Clemson University indicate South Carolina remains a strong retirement destination for seniors. In the last ten years senior fitness centers have entered the marketplace to fulfill the needs of seniors looking to improve both the quality of their life and increase longevity. This expanding market needs highly qualified professionals to deliver programs and serve the needs of an increasing number of seniors. Many seniors finally find the time to "get fit" or commit to an active lifestyle once they retire. They are looking for quality programs to give them the knowledge, encouragement, and structure to improve their diets, lose weight, and delay any onset of dementia.

Student Need. Students attracted to an EXSC program are individuals 1) anticipating working with mostly healthy clients and/or clients with controlled disease in health/fitness settings, 2) planning to attend graduate study in Exercise Physiology (clinical exercise physiology, cardiac rehabilitation or

other), and 3) pre-allied health students such as those who plan to attend Physical Therapy, Occupational Therapy, Physician Assistant, or Chiropractic programs. Students would also qualify to pursue accelerated Bachelors/Masters programs in Nursing. Students enrolled in EXSC would meet most, if not all, major prerequisites for dental and medical school while gaining valuable practical experience with clients.

As more and more students wish to pursue graduate study in exercise physiology or pursue allied health professional school programs, there is need for a curriculum that will allow them to meet entry requirements without the need for additional coursework. Furthermore, students and their families desire a focused program that allows students to graduate in four years with the ability to meet their career goals. Often students who wish to pursue allied health professional programs are nontraditional students, and with the growing population of the Rock Hill area, these students would look to Winthrop for their academic preparation.

Centrality of the program to the mission of the institution

The proposed degree program dovetails with the Winthrop University Vision of Distinction for “quality and value in education.” It coincides with the University’s mission of “providing Education programs of national caliber within a context dedicated to public service to the State of South Carolina. All eligible bachelor's, master's and specialist degrees in the liberal arts and sciences, education, business and the visual and performing arts are nationally accredited – part of the University’s commitment to be among the very best institutions of its kind in the nation.” (Winthrop University Mission Statement, Office of the President, 2000, para.1)

A major goal of the EXSC program is to pursue accreditation over the next five years through the Commission on Accreditation of Allied Health Programs (CAAHEP). This organization accredits programs in Exercise Science at the undergraduate level and Exercise Physiology at the graduate level.

The commitment of the University to the Department of Health and Physical Education and the EXSC program was solidified with the fall 2007 opening of the state-of-the art Lois Rhame West Health, Physical Education and Wellness Center on the Winthrop campus. This spectacular 138,000 square foot, LEED/environmentally-friendly facility is expected to increase interest in the EXSC program as well as other majors in Health and Physical Education. As well as fitness and recreation facilities and programs, the building contains large classrooms with the latest teaching technology, a University-supported computer lab, and laboratory teaching space with new exercise testing and research equipment. The Lois Rhame West Center will be at the new heart of campus with the future Campus Center and library to be built adjacent to the facility.

Relationship of the Proposed Program to Existing Programs at the Proposed Institution

The Exercise Science program will complement other programs in the department which include Physical Education Teacher Certification (the one remaining concentration in the BS in Physical Education), Athletic Training, and Sport Management. Several departmental core courses, such as PHED 381 Research Methods, are taken by all students in the department. The common bond of the various programs in the department is the scientific core required of all students in the allied health disciplines.

The Department of Health and Physical Education has excellent working relationships with the Biology, Nutrition, and Business Departments. There are no allied health programs at Winthrop, and no programs directly compete for students who would pursue EXSC careers. The Department of Health and Physical Education will work with the Admissions Office regarding recruitment at high-school and college campus events.

Assessment of Extent to Which the Proposed Program Duplicates Existing Programs in the State

The existing Exercise Science program at the University of South Carolina (USC) is 75 miles from Rock Hill. This leaves Winthrop in an opportune geographic location for its own Exercise Science program. Other B.S. programs in Exercise Science at state institutions include USC Aiken and Lander University. Coastal Carolina University is adding a B.S. in Exercise and Sport Science. Both the College of Charleston and Charleston Southern offer concentrations in Exercise Science, but no stand-alone B.S. degrees.

In March 2007, Winthrop hired a consultant to advise on the CAAHEP accreditation process. Dr. Lisa Colvin from the University of Louisiana – Monroe was recommended by CAAHEP as a consultant. She serves as a lead reviewer for CAAHEP and helped develop standards for exercise science. She provided feedback on curriculum development, laboratory equipment, full-time faculty needs, and student management and tracking. She recommended that the EXSC program match prerequisites for the highest preadmission requirements to physical therapy programs in the state. Therefore, the curriculum as currently drafted would prepare students for admission to the Medical University of South Carolina and the USC physical therapy programs. In addition, all prerequisites would be met for admission to the USC graduate program in Exercise Physiology.

Relationship of the Proposed Program to the Other Institutions via Inter-Institutional Cooperation

Winthrop has a long history of working with local school districts and community-based organizations. The EXSC program faculty at Winthrop University are in an excellent position to partner with colleges, universities, and hospital/medical facilities locally and nationwide.

ENROLLMENT

Admission criteria

Admission criteria for EXSC are aligned with other pre-professional programs in the Richard W. Riley College of Education and the Department of Health and Physical Education.

After 30 hours, all exercise science majors must meet the following requirements:

1. A “C” or better in EXSC 101.
2. Minimum of 2.25 cumulative GPA in all undergraduate coursework at Winthrop.

For admission to the EXSC program:

1. “C-” or better in BIOL 307 and 308 with labs.
2. “C” or better in PHED 382 and 384 with labs.
3. Advisor and program approval.

For admission to the EXSC internship:

1. Completion of BIOL 307 and 308 with labs with “C” or better.
2. Minimum of 2.5 cumulative GPA in all required EXSC coursework.
3. Advisor and program approval.

Projected Student Enrollment

Currently the Fitness/Wellness concentration has the largest student enrollment in the Department of Health and Physical Education with 50 students. All of these students will enroll in the BS in Exercise Science degree program. In addition, the new degree will attract students specifically interested in exercise science and allow the department to actively recruit students into the program. In the last five years, no students or parents have asked for information on the Fitness/Wellness concentration during any of the on-campus recruiting efforts. Students selected this program once they arrived on campus. The change to a BS in Exercise Science will enhance recruiting efforts and allow the department to market a nationally recognized degree program.

An additional pool of new students will be found with the alignment of requirements in Exercise Science with various allied health programs in the state. Anecdotal evidence suggests that students will be attracted to a degree program which aligns with allied health advanced degree programs in physical therapy, cardiac rehabilitation, and physician assistant in the state and region. Students currently enrolled in various pre-major programs have indicated a desire to enroll in an exercise science degree program.

The current national obesity and health crisis has created a need for qualified professionals in exercise science. With the aging of the population, the obesity crisis, and the emphasis on reducing health costs, exercise science graduates will be part of a positive employment trend in the region and across the country. Students will have a variety of employment opportunities in a rapidly growing industry in a rapidly growing region of the country. The demand for qualified professionals will only increase over the next 10 to 20 years.

The following enrollment projections are based on the above trends.

PROJECTED TOTAL ENROLLMENTS FOR 2009-2014

YEAR	FALL		SPRING		SUMMER	
	Headcount	Credit hours	Headcount	Credit hours	Headcount	Credit hours
2009-2010	50	750	53	795	4	24
2010-2011	53	795	56	840	6	36
2011-2012	56	840	59	885	4	24
2012-2013	59	885	61	915	4	24
2013-2014	61	915	64	960	6	36

Note: Fall 2009-2010 projections are based on current enrollments in the Fitness/Wellness concentration, which has shown a 5% increase over the last three years. Projections for growth are based on an annual 5% increase in the current enrollment. Credit hour production is based on 15 hours per semester per student.

PROJECTED NEW ENROLLMENTS FOR 2009-2014

YEAR	FALL		SPRING		SUMMER	
	Headcount	Credit hours	Headcount	Credit hours	Headcount	Credit hours
2009-2010	3	45	4	60	1	3
2010-2011	5	75	6	90	1	3
2011-2012	7	105	6	90	1	3
2012-2013	10	150	6	90	2	6
2013-2014	13	195	7	105	2	6

Note: Projections are based on the number of students expressing interest in exercise science programs through the admission's office and the department over the last two years. On average 3-5 students have requested information about an exercise science degree program. Credit hours production is based on 15 hours per semester per student.

CURRICULUM
 Bachelor of Science in Exercise Science (EXSC)
 Department of Health and Physical Education
 Richard W. Riley College of Education

General Education		Semester Hours
ACAD 101	Principles of the Learning Academy	1
Critical Skills		
Writing and Critical Skills		
WRIT 101	Composition	3
CRTW 201	Critical Reading, Thinking, & Writing	3
Quantitative Skills		
MATH 101	Calculus for Managerial and Life Sciences	3
Technology		
CSCI 101 &3 from 101A, B, C, or P	Intro to Comp & Info Processing	0
Oral & Expressive Communication		
SPCH 201	Public Speaking	0
Logic/Language/Semiotics		
CSCI 101 &3 from 101A, B, C, or P	Intro to Comp & Info Processing	3
SPCH 201	Pubic Speaking	3
Skills for a Common Experience and Thinking Across Disciplines		
HMXP 102	The Human Experience: Who Am I?	3
Global Perspectives	Select from approved list	3
Historical Perspectives		
HIST 211	US History to 1877	3
Developing Critical Skills and Applying Them to Disciplines		
Social Science		
SOCL 201	Intro to Sociology	3
PSYC 101	General Psychology	3
Humanities and Arts	Select from approved list	6
Natural Science		
BIOL 307	Human Anatomy	4
CHEM 105/107	General Chemistry I and Lab	4
Intensive Writing		
PHED 381	Research Methods in Phys. Act. & Sport Mgmt	0
Constitution Requirement		
HIST 211	US History to 1877	0
		45 credit hours
Exercise Science Core		
HLTH 300	Personal and Community Health	3
HLTH 406	Exercise and Health Promotion	3
EXSC 101	Introduction to Exercise Science	3
EXSC 485	Exercise Physiology II and Lab	4
EXCS 511	Physical Activity, Nutrition, and Aging	3
EXCS 495	Internship	12
PHED 267	Weight Training	1
PHED 208	Weight Control through Diet and Exercise	2

PHED 242	Motor Learning	3
PHED 361	First Aid and CPR	1
PHED 381	Research Methods in Phys. Act. & Sport Mgmt.	3
PHED 382	Kinesiology	3
PHED 384	Exercise Physiology I	3
PHED 385	Exercise Physiology Lab	1
PHED 465	Strength and Conditioning	2
PHED 480	Exercise Testing and Prescription	3
PHED 481	Exercise Testing and Prescription Lab	1
		51 credit hours
Scientific Foundation Core		
BIOL 203/204	Principles of Biology and Lab	4
BIOL 307	Anatomy	0
BIOL 308	Human Physiology	4
NUTR 221	Human Nutrition	3
CHEM 105/107	General Chemistry I and Lab	0
NUTR 520	Sports Nutrition	3
		14 credit hours
Selectives: Select a minimum of 15 credits from the following list:		
BIOL 206	General Zoology (includes lab)	4
CHEM 105/107	General Chemistry II and Lab	4
HLTH 500	Contemporary Health Issues	3
HLTH 501	Substance Abuse Education	3
HLTH 507	Women's Health Issues	3
PHED 303	Teaching Aerobic Activities	1
PHED 307	Outdoor Education Theory & Practice	2
PHED 525	Risk Management in PA and Sport	3
PHED 548	Psychology of Sport	3
PHYS 201	General Physics I	4
PHYS 202	General Physics II	4
PSYC 301	Statistics	3
PSYC 206	Developmental Psychology	3
PSYC 313	Abnormal Psychology	3
SPMA 235	Sport Events Management	3
		15 credit hours
TOTAL CREDIT HOURS		125Credit hrs.

ASSESSMENT OF STUDENT LEARNING OUTCOMES

Student learning outcomes will dovetail with the list of Knowledge, Skills, and Abilities (KSA's) described for the Health/Fitness Instructor Certification by the American College of Sports Medicine as listed in Appendix F of the *ACSM's Guidelines for Exercise Testing and Prescription Seventh Edition (2005)*. Content area includes Exercise Physiology Core Content and Related Exercise Science; Path physiology; Exercise Testing, Programming, and Prescription; Nutrition and Weight Management; Human Behavior and Counseling; Safety, Injury Prevention, and Emergency Procedures; and Program Administration, Quality Assurance, and Outcomes Assessment. These 175 KSA's are also used as The basis for program accreditation. Therefore, the curriculum didactic coursework, including new proposed

coursework, laboratory experiences, as well as field work and practicum experiences, will address the KSA's in order to ensure student competencies in these program areas.

Students would be assessed on the KSA's as outlined in the table below:

Course	Type of Competency	Type and Number of Assessments
EXSC 101 - Intro to EXSC	Knowledge	Written Exams (3) Research Abstracts
EXSC 485 – Ex. Phys. II	Knowledge	Written Exams (2) Comprehensive Final Exam
EXSC 485 – Ex. Phys. II Lab	Clinical Proficiency (Skill)	Proficiency Checklist Written Laboratory Reports
EXSC 511 – Phys. Act., Nutrition, & Aging	Knowledge	Written Exams (2) Comprehensive Final Exam
EXSC 495 – Internship	Knowledge, Skills, & Abilities	On-site Supervisor Eval. (2) University Supervisor Eval (2) Final Project
HLTH 300 – Personal & Community Health	Knowledge	Written Exams (2) Behavior Modification Plan
HLTH 406 – Exercise & Health Promotion	Knowledge and Abilities	Written Exams (2) Promotion Plan
PHED 208 – Weight Control thru Diet & Exercise	Knowledge and Abilities	Written Exams (2) Nutrition Plan
PHED 242 – Motor Learning	Knowledge	Written Exams (2) Final Comprehensive Exam (1) Research Abstracts (3)
PHED 267 – Weight Training	Skills	Proficiency Checklist Written Exam (1)
PHED 361 – First Aid & CPR	Skills	Proficiency Checklist Red Cross Certification
PHED 381 – Research Meth. in Phys. Act. & Sport Mgmt.	Knowledge and Abilities	Written Exam (2) Comprehensive Final Exam Review of Research Literature
PHED 385 – Ex. Phys. Lab	Skills	Written Laboratory Reports Proficiency Checklist
PHED 465 – Strength and Conditioning	Knowledge, Skills, and Abilities	Written Exams (2) Proficiency Checklist National Strength & Condition Certification Exam
PHED 480 – Ex. Testing and Prescription	Knowledge and Abilities	Written Exams (2) Exercise Prescription Program Health/Fitness Instructor Cert.
PHED 481 – Ex. Testing and Prescription Laboratory	Knowledge and Abilities	Client Assessment Client Exercise Prescription Client Log Client Evaluation

NEW COURSES

The following is a list of new courses to be added over the next three years:

New course offerings for Major Requirements

EXSC 485 - Exercise Physiology II (path physiology) and Lab as required for ACSM (4)

A study of general principles and causes of disease and resultant abnormal physiological function of organ systems. Included are discussions on stress, cardiovascular, nervous, respiratory, endocrine, and musculoskeletal dysfunction.

EXSC 511 - Physical Activity, Nutrition, and Aging (3)

An examination of the physiological changes occurring in senior adults and persons with disabilities and other hypo kinetic diseases. In addition, the impact of physical activity on health, hypo kinetic diseases, daily functioning, and quality of life are explored.

HLTH 406 Exercise and Health Promotion

This course is designed to provide an understanding of health factors affecting morbidity and mortality, behavior change and applicable strategies for intervention, and the role of theory in shaping research, practice and interventions in health promotion and education.

PHED 385 – Exercise Physiology Laboratory

Students will gain practical experience in laboratory-based exercise testing such as maximum aerobic and anaerobic capacity testing and body composition assessment.

PHED 481 – Exercise Testing and Prescription Laboratory

Students will gain practical experience working with youth, adult, and senior clients, applying theory learned in class, performing fitness assessments, developing individualized exercise programs, and supervising exercise sessions.

New Course offerings to support EXSC Selectives to be developed over the next five years, not included in this proposal:

EXSC 490 – Cardiopulmonary Rehabilitation (3)

EXSC 599 – Directed Research in Exercise and Sport Science (3)

STAFFING

FACULTY

Table detailing rank and qualifications of each staff member who will be involved in the program

List Staff by Rank	Highest degree earned	Field of Study	Teaching in Field
Assistant Professor	Ph.D.	Health Promotion	Yes
Assistant Professor New Hire 2009	Ph.D. or Ed.D.	Exercise Science/Director	Yes
Research Faculty	Ph.D. or Ed.D.	Exercise Science	Yes
Professor	Ph.D.	Exercise Science	Yes
Adjunct	M.S. or M.Ed.	Health Promotion	Yes
Adjunct	M.S or M.Ed.	Health or Exercise Science/Internship coordinator	Yes

The university has committed to one new tenure-track hire for fall 2009, who will teach and serve as director of the EXSC program. Accreditation through CAAHEP requires one director who receives 3-6 hours of release time for student tracking and program administration. Winthrop University is a teaching institution with an expected faculty load of 12 credit hours per semester. EXSC courses will be taught by tenure track faculty, full time instructors and adjunct/clinical faculty. Based on enrollment for the first 3 - 5 years, no additional faculty beyond the new hire will be needed to cover regular coursework. Future faculty will be determined by student demand, enrollment increases, retirements, and increased tuition.

Institutional Plan for Faculty Development

University Programs:

Winthrop University sponsors the Teaching and Learning Center to support faculty development and to improve teaching effectiveness. Programs sponsored by the Center include Teaching Squares, numerous workshops, and an extensive new faculty mentoring program. These programs are ongoing and provide a variety of faculty development opportunities that faculty members within the Exercise Science Program would be encouraged to participate.

Richard W. Riley College of Education (COE):

Each full-time faculty member receives funds annually from the Richard W. Riley College of Education for use in professional development. Faculty members also apply for development funds through the COE Faculty Development Committee. Additional sources of development funds are available through the Bank of America Award, Singleton Endowed Professorship Award, Tolbert Faculty Development Award, and the Winthrop University Research Council Awards. All the above awards are competitive opportunities for faculty to develop their research agendas and improve teaching effectiveness. In addition, the COE provides mentoring opportunities for faculty members and sponsors numerous workshops under the heading of "Take Thirty." All faculty members in the Exercise Science program will have the opportunity to apply for and participate in any of the development opportunities sponsored by the COE.

Health and Physical Education:

The Department of Health and Physical Education supports faculty development through the Bobb/Taylor fund and the Post fund. Funding for research projects through these funds is competitive. In addition, the department provides full day workshops to faculty members in Exercise Science, Athletic Training, and Teacher Certification. Any time the department invests in new equipment or software, funding is made available for faculty development. The plan is for extensive funding for faculty in exercise science to be made available through the department since much of the fitness assessment equipment is new to the program. The department will seek funding both at the university and college levels to support future faculty development opportunities based on the needs of the program.

Institutional Definition of Full-time Equivalent (FTE)

Every 24 credit hours taught during the academic year is equivalent to one Full-Time Equivalent (FTE). Faculty members with approved scholarly reassigned time have a defined FTE as 21 credits for the academic year.

Unit Administration/Faculty/Staff Support:

Table below shows for at least the first five years the number (headcount) and full-time equivalent (FTE) of faculty, administrators, and/or staff to be used in the program.

UNIT ADMINISTRATION/FACULTY/STAFF SUPPORT						
YEAR	NEW		EXISTING		TOTAL	
	Headcount	FTE	Headcount	FTE	Headcount	FTE
Administration						
2008-09	0	0	1	.25	1	.25
2009-10	1	.25	1	.25	2	.50
2010-11	0	0	2	.50	2	.50
2011-12	0	0	2	.50	2	.50
2012-13	0	0	2	.50	2	.50
Faculty						
2008-09	0	0	5	2.5	5	2.5
2009-10	1	.75	5	2.50	6	3.25
2010-11	0	0	6	3.25	6	3.25
2011-12	0	0	6	3.25	6	3.25
2012-13	0	0	6	3.25	6	3.25
Staff						
2008-09	0	0	2	.40	2	.40
2009-10	0	0	2	.40	2	.40
2010-11	0	0	2	.40	2	.40
2011-12	0	0	2	.40	2	.40
2012-13	0	0	2	.40	2	.40

Physical Plant

Existing Facilities

The EXSC program is housed in a brand-new, state-of-the-art, LEED-certified 138,000 square foot facility that opened for the fall 2007 semester. The building contains spacious classrooms equipped with the latest teaching technology such as LCD projectors, Smart Boards, and Symposiums. The computer lab contains 25 workstations with Microsoft Office 2007, Dartfish motion analysis software, and statistical software such as SPSS, among many other education and science applications. There are brand new human performance and athletic training laboratory spaces. All gymnasiums, group fitness exercise rooms, swimming pool, and 1/8 mile indoor track are given preferential use for academic programs over recreation.

Additional Physical Plant Requirements

There are no additional physical plant requirements foreseen at this time.

Equipment

New laboratory equipment and supplies have been or are in the process of being purchased as part of the Lois Rhame West Center budget. The consultant who advised on CAAHEP accreditation identified some particular pieces of equipment required for certification: metabolic cart, two stress testing systems with interfaced electrocardiogram (ECG) and treadmill, 3 cycle ergo meters, spirometer, sphygmomanometers and teaching stethoscopes, Polar heart rate monitors, body composition equipment (skin fold calipers, Gulick tape measures, bioelectric impedance, and hydrostatic weighing, scale, stadiometer). Service contracts will be purchased for the major equipment pieces such as the metabolic cart and ECG stress testing systems. Any consumable supplies such as those related for the ECG stress testing system and metabolic cart will be placed in the annual budget request for the program. Community-based fitness testing and research grants could help with supply replenishment along with other resources through the Department and College.

Library Resources:

The Ida Jane Dacus Library is an integral part of the university's instructional program. The primary goal of the Winthrop University Library is to support the instructional and research activities of the Winthrop University academic community. The Library also serves the community at large through interlibrary cooperative agreements and limited public access to the collection.

All freshmen receive basic instruction in library use, and specialized instruction in advanced topics is offered to many other classes. In addition to the traditional reference assistance available in Dacus, material can be requested from other institutions through partnership among South Carolina Academic Libraries (PASCAL) and traditional interlibrary loan. It is impossible for the library to purchase all resources, but a concerted effort is made to acquire quality material. New courses and programs, accreditation standards, as well as courses dropped from the curriculum, are constantly reviewed.

As of July 1, 2007, the General Collection consists of over 424,896 volumes and a piece count of over 1,890,863. Dacus Library receives over 1,459 different print subscriptions to general magazines, journals for specific topics and national and international newspapers. The e-journal collection has approximately 25,676 unique titles indexed in a total of 33 different databases.

Quantitative Comparison of Library Holdings

Peer Institutions

- **Radford University** offers a B.S. Degree in Exercise Sport and Health Education with an Exercise and Sport Science Concentration. Fall 2006 headcount enrollment: 9,952
- **Furman** has a department of Health and Exercise Science and offers Bachelors of Arts and Bachelor of Science degrees. Fall 2006 headcount enrollment: 3,007
- **College of Charleston** offers a physical education degree with a concentration in Exercise Science. Fall 2006 headcount enrollment: 11,218
- **Coastal Carolina University** is currently in the process of establishing a Bachelor of Science Degree in Exercise and Sport Science. Fall 2006 headcount enrollment: 8,049
- **Winthrop University** is currently in the process of requesting permission to offer a degree in Exercise Science. Fall 2006 headcount enrollment: 6,292.

Exercise Science covers the body of knowledge concerning the relationship between physical activity and human health. The sub-disciplines of exercise science are exercise physiology, biomechanics, motor behavior, or sport psychology. The library catalogs of the peer institutions were searched to ascertain the approximate number of cataloged titles within the selected Library of Congress subject headings. In comparing Winthrop to its peers, and especially to the institution with degrees in exercise science, the title count is comparable.

Monographs and Audio-Visuals

	Radford	Furman	College of Charleston	Coastal Carolina	Winthrop
Athletes Nutrition (TX)	62	56	56	27	59
Biomechanics (QP)	7	28	64	19	28
Cardiac Rehabilitation (RC)	12	14	13	5	16
Exercise Physiological Aspects (QP)	114	131	144	51	144
Exercise Therapy (RM)	89	102	90	34	86
Kinesiology QP	43	39	46	22	55
Motor Behavior	0	0	0	0	0
Occupational Therapy (RC)	46	22	34	10	25
Physical Education and Training (GV)	631	646	625	199	748
Physical Fitness (GV)	489	411	482	133	491
Physical Fitness - testing (GV)	52	49	65	11	66
Physical Therapy (RM)	215	78	156	18	58
Recreational Therapy (RM)	156	13	30	17	41
Sports injuries (RD)	0	0	0	18	111
Sports medicine (RC)	128	139	0	52	115
Sports Nutrition (RA)	5	1	0	0	1
Sports Psychological Aspects (GV)	142	163	149	27	158
Sports sciences (GV)	28	17	33	11	22
Total Titles Held	2219	1909	1987	654	2224

Periodicals/Electronic journals

Databases appropriate for Exercise Science are Physical Education Index, SPORT Discus, Health Reference Center – Academic, Health and Wellness Resource Center, Health Source Nursing/Academic, Health Source-Consumer Edition, Nutrition Abstracts, MEDLINE, PsycINFO, PsycAbstracts, CINHAHL, LexisNexis Academic (Medical), Psychology and Behavioral Sciences Collection, Clinical Pharmacology, and Liebert Online. The library provides access to its holdings via the World Wide Web at (<http://www.winthrop.edu/dacus>).

Current Periodicals in Print

American Journal of Public Health
American Journal of Health Behavior
American Journal of Health Education
Athletic Business
Health
ICHPER-SD Journal
ICHPER-SD journal of Research
Journal of Athletic Training
Journal of American College Health
Journal of Sport History
Journal of Teaching in Physical Education: JTPE
Journal of Strength and Conditioning Research
Journal of Physical Education, Recreation & Dance
Perceptual and Motor Skills
The Physical Educator
Students have access to electronic Journals via the online catalog.

Subject Area	Number of e-journals
Health & biological Sciences: Diet and Clinical Nutrition	92
Health & biological Sciences: Human Anatomy & Physiology: Physiology	104
Health & biological Sciences: Human Anatomy Physiology: Anatomy	17
Health & biological Sciences: Medicine: Sports Medicine	18
Health & Biological Sciences: Occupational Therapy & Rehabilitation	29
Health & Biological Sciences: Physical Therapy	24
Health & Biological Sciences: Surgery & Anesthesiology: Wounds & Injuries	7
Total e-journals	291

Quantitative estimate of acquisitions needed

According to *The Bowker Annual Library and Book Trade Almanac 52nd* edition, and using the subject areas appropriate for exercise science, the price for books for 2006 was: Biology (\$69.65), Health sciences (\$57.19), Sports/Physical Education (\$40.39), *Medicine (\$100.00) and *Chemistry (\$110.55). Calculating an average price per volume of \$75 for monographic titles published in the area of exercise science.

For the past three years, the library's expenditures for all areas supporting Health & Physical Education are outlined below.

	fy2004-2005	fy2005-2006	fy2006-2007
Books			
Health & Physical Education	\$2,774.05	\$3,322.05	\$1,749.62
Biology	\$11,662.38	\$10,946.96	\$12,938.43
Human Nutrition	\$2,544.50	\$4,149.88	\$4,538.28
Total books:	\$16,980.93	\$18,418.89	\$19,226.33
Video / sound			
Health & Physical Education	\$3,049.68	\$3,351.09	\$1,838.62
Biology	\$11,662.38	\$11,346.43	\$12,965.42
Human Nutrition	\$2,812.35	\$5,883.21	\$4,547.77
Total videos:	\$17,524.41	\$20,580.73	\$19,351.81
Serials			
Health & Physical Education	\$5,121.40	\$5,898.96	\$7,178.94
Biology	\$125,297.88	\$110,518.76	\$117,478.92
Human Nutrition	\$11,432.73	\$11,329.50	\$12,945.09
Total serials:	\$141,852.01	\$127,747.22	\$137,602.95

Total expenditures: \$176,357.35 \$166,746.84 \$176,181.09

When the degree program is approved, the Library will request and allocate additional funding to purchase resources not currently available in the collection. Based on past spending patterns of the Library, the monographs budget for exercise science will average an 8% increase each year and the periodicals budget will average a 13% increase.

	FY2007/2008	FY2008/2009	FY2009/2010	FY2010/2011	FY2011 /2012
Books	750	788	827	868	900
Video / sound (flat allocation)	400	400	400	400	400
Serials	700	790	894	1000	1140
Total expenditures:	1850	1978	2121	2268	2440

Accreditation

It is planned that the EXSC program will undergo accreditation by the Commission on Accreditation of Allied Health Programs (CAAHEP), which accredits programs upon the recommendation of the Committee on Accreditation for the Exercise Sciences (COAES). In the past, the American College of Sports Medicine (ACSM) provided endorsements of undergraduate programs in Exercise Science and graduate programs in Exercise Physiology. However, ACSM no longer offers this service or endorsement and has recommended that programs seek accreditation through CAAHEP. Other major professional organizations, such as the American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD), have recommended that programs meet CAAHEP standards. There are currently no CAAHEP accredited Exercise Science programs in South Carolina, North Carolina, or Georgia. Winthrop could be the first accredited program in South Carolina.

The CAAHEP accreditation involves review of the program’s curriculum, facilities, lab equipment and faculty/staff. There must be one Program Director who receives 3-6 hours of release time for program coordination and to track the students in the program. Once students are in the program, 70% must be retained, and 60% of graduates must pass a national certification exam. The exam chosen is often the ACSM Health/Fitness Instructor certification since the CAAHEP accreditation closely follows the ACSM KSA’s, though programs could choose another certification exam appropriate for the B.S. level. For example, EXSC students will take PHED 465 Strength and Conditioning, which prepares them for the National Strength and Conditioning Association (NSCA) certification exam. The NSCA exam is already regularly hosted twice per year at Winthrop, and the new Lois Rhame West Center will have appropriate facilities to allow hosting of other entry level and specialty certifications.

Once an initial application and self study report are filed through CAAHEP, site reviewers visit the campus and indicate if the program meets the mandatory standards for initial accreditation. Feedback is given for areas where the program does not meet standards with additional feedback on optional guidelines the institution may wish to strive towards. Initial accreditation is for five years and annual reports are mandatory. After this 5-year initial accreditation, there is another site visit which may grant an additional 5-10 years accreditation. Program graduates are tracked for job placement or graduate/professional school enrollment.

Estimated Cost

NEW COSTS TO THE INSTITUTION AND SOURCES OF FINANCING

ESTIMATED COSTS BY YEAR						
Category	1st	2nd	3rd	4th	5th	TOTALS
Program Administration	0	13,000	13,390	13,792	14,206	54,388
Faculty Salaries	0	39,000	40,170	41,376	42,618	163,164
Graduate Assistants	0	0	0	0	0	0
Clerical/Support Personnel	0	0	0	0	0	0
Supplies and Materials	0	0	0	0	0	0
Library Resources	0	0	0	0	0	0
Equipment	0	0	0	0	0	0
Facilities	0	0	0	0	0	0
Other (Identify)	0	0	0	0	0	0
TOTALS	0	52,000	53,560	55,168	56,824	217,552

SOURCES OF FINANCING BY YEAR						
Estimated FTE Revenue from the State	42,516	66,136	77,946	96,842	120,462	403,902
Tuition Funding (new students only)	47,388	75,862	91,939	117,372	149,909	482,470
Other State Funding (Legislative Approp.)	0	0	0	0	0	0
Reallocation Existing funds	0	0	0	0	0	0
Federal Funding	0	0	0	0	0	0
Other Funding (Endowment, Auxiliary, etc)	(Grant) 10,000	(Grant) 10,000	(Grant) 10,000	(Grant) 10,000	(Grant) 10,000	(Grant) 50,000
TOTALS	99,904	151,998	179,885	224,214	280,371	936,372

*Specify source(s) (e.g., Special Item Appropriation, Auxiliary Enterprise Funds, Endowment Income, Special grant or contract, etc)

Institutional Approval

The Winthrop University Board of Trustees approved offering the Bachelor of Science in Exercise Science on February 22, 2008.