

## Program Planning Summary

### Program Designation

<b>Degree Name:</b>	Bachelor of Science in Exercise Science CIP Code: 31.0505
<b>Academic Unit:</b>	Department of Health and Physical Education Richard W. Riley College of Education Winthrop University Rock Hill, SC 29733
<b>Proposed Date of Implementation:</b>	Fall 2008 or 2009?
<b>New Program or Modification:</b>	New
<b>Number of Credit Hours in Program:</b>	125 (four year program)

### Justification of Need

The principal goal of the Exercise Science (EXSC) Program is to provide students with sound academic preparation in the science of human movement. Students in the program will acquire knowledge, skills, and abilities (KSA's) related to the theoretical and practical components of exercise science. 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 professional graduate programs. The proposed curriculum will allow students to complete pre-requisites required for physical therapy, occupational therapy, and physician assistant programs.

With the doubling of obesity in the United States over the last 20 years, well trained and dedicated professionals are needed in the areas of health promotion and exercise science. According to the Centers for Disease Control and Prevention (CDC, 2007), South Carolina's most recent data for 2005 indicated a prevalence of obesity (defined by a Body Mass Index of 30 or higher) in 25-29% of the population. South Carolina's neighboring states of North Carolina, Tennessee, and Georgia are in the same obesity category. Obesity in children ages 2-18 years has tripled since 1980 (National Center for Health Statistics, 2007). As the World Health Organization (2007) has noted, populations in industrialized nations participate less in daily physical activity and consume diets higher in fat and processed foods than those in less industrialized countries. Professionally trained men and women are needed to help stem this tide of obesity and inactivity in the culture.

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 (CDC, 2007). 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). In the last ten years senior fitness centers, such as Fit over Fifty, have entered the market place 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.

The major chronic diseases associated with obesity and aging are lifestyle related: diabetes, heart disease, and certain cancers. Physical activity or the lack thereof, has a major impact on each one of these diseases (USDHHS, 2000). Therefore, increases in obesity in both youths and adults combined with an aging U.S. population justify the need for the education of qualified health and fitness professionals. Exercise science professionals will have the scientific and educational background to:

1. Demonstrate the physiological, psychological, and environmental mechanisms and relationships of physical activity on health, chronic disease, and aging.
2. Be employed in career paths where they can impact health in individuals and/or communities locally, state-wide, or the national or international level.

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. Median income for fitness workers is listed at \$25,740, but this reflects a wide range of occupations including those who work part time only. The rapid population growth in Charlotte, North Carolina and Rock Hill, South Carolina (U.S. Census Bureau, 2007) 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 BS in Exercise Science is a nationally recognized degree. The current Fitness/Wellness concentration is not nationally recognized as there is no accrediting association for the concentration. By moving to a BS in Exercise Science, Winthrop will be able to seek accreditation for the program and recruit students specifically seeking a degree in exercise science.

### **Anticipated Program Demand and Productivity**

The 2007 opening of the state-of-the art Lois Rhame West Center on the Winthrop campus is expected to lead to increased interest in the Exercise Science program as well as other majors in Health and Physical Education. Students attracted to an Exercise Science program are individuals 1) anticipating working with mostly healthy clients and/or clients with controlled disease, 2) attending 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 will qualify to pursue accelerated Bachelor of Science/Master of Science programs in Nursing. Students in Exercise Science will meet most, if not all, major prerequisites for dental and medical school without taking biology courses that are not health related.

Currently, Fitness/Wellness is the largest concentration within Health and Physical Education with 50 enrollees, but the program does not meet requirements for either graduate study in Exercise Physiology or professional school programs. With the new alignment with various graduate programs, Winthrop anticipates increased enrollment in the program. It is anticipated that many current Fitness/Wellness students will meet the proposed qualifications for acceptance into the Exercise Science Program and seek a degree in exercise science. The anticipated new student enrollment would be five students in the first year with continuing growth projected over the next five years.

It is Winthrop's goal to pursue accreditation of the Exercise Science Program 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. There are currently no CAAHEP accredited undergraduate Exercise Science programs in South Carolina, North Carolina, or Georgia. Winthrop could be the first accredited program in South Carolina.

In March 2007, Winthrop hired a consultant to advise on the CAAHEP accreditation process. The major points addressed were curriculum development, laboratory equipment, full-time faculty needs, and student management and tracking. The consultant recommended that the proposed program match pre-requisites for the highest pre-admission requirements to Physical Therapy (PT) programs in the state. Therefore, the curriculum as currently drafted maps on to the Medical University of South Carolina pre-PT requirements. The proposed

curriculum meets all current CAAHEP accreditation standards for exercise science and allows for students to plan a program specific to their long term career goals. This design will maximize potential student enrollment.

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

The nearest existing Exercise Science program is at University of South Carolina. This places 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.

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

The Exercise Science program will complement other programs in the Department of Health and Physical Education: Physical Education Pedagogy, Athletic Training, and Sport Management. Several departmental courses, such as Research Methods, are taken by all students regardless of concentration allowing the department to maximize faculty resources. Exercise Science students interested in the business aspects of fitness could pursue Sport Management Courses through the other BS program housed in the department.

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 desire Exercise Science careers. The Department of Health and Physical Education would work with campus Admissions regarding recruitment at high-school and college campus events.

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

Winthrop has excellent rapport with local school districts and community-based organizations. Exercise Science program faculty at Winthrop University are in an excellent position to partner with colleges, universities, and hospital/medical facilities locally and nationwide.

### **Additional Costs of Implementing the Program**

There are two full-time faculty members to lead the Exercise Science program, with a need for a third full-time position for additional required courses (1 FTE at \$65,000 to include fringes). Accreditation by CAAHEP requires a Program Director who has 3-6 hours per year of reassigned time for coordination and student tracking. The CAAHEP process tracks outcomes of students as part of their standards. Winthrop must retain 70% of students once Exercise Science is declared as a major, and 60% of graduates must pass a national certification exam. Additional tracking will be required for graduate or professional school placement and employer satisfaction.

Equipment purchases (already budgeted) for the new laboratories have been guided with CAAHEP accreditation in mind; additional equipment and supplies will be ordered as needed. Winthrop Dacus Library will be examined for essential resources. Additional book and journal purchases can enhance library holdings. The inter-library loan program obtains books and journal articles in a timely manner. Reference librarians are experienced in assisting majors one-on-one to search appropriate databases and will conduct training within specific courses.